

1177 MARKET STREET PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT

City and County of San Francisco
Planning Department

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Draft EIR Publication Date: February 4, 2006

Draft EIR Hearing Date: March 9, 2006

Draft EIR Public Comment Period: February 4, 2006 - March 15, 2006

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Please send written comments to:
Paul Maltzer, Environmental Review Officer
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1660 Mission Street, Suite 500, San Francisco, CA 94103**



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DATE: February 4, 2006

TO: Distribution List for the 1177 Market Street Project Draft EIR

FROM: Paul Maltzer, Environmental Review Officer

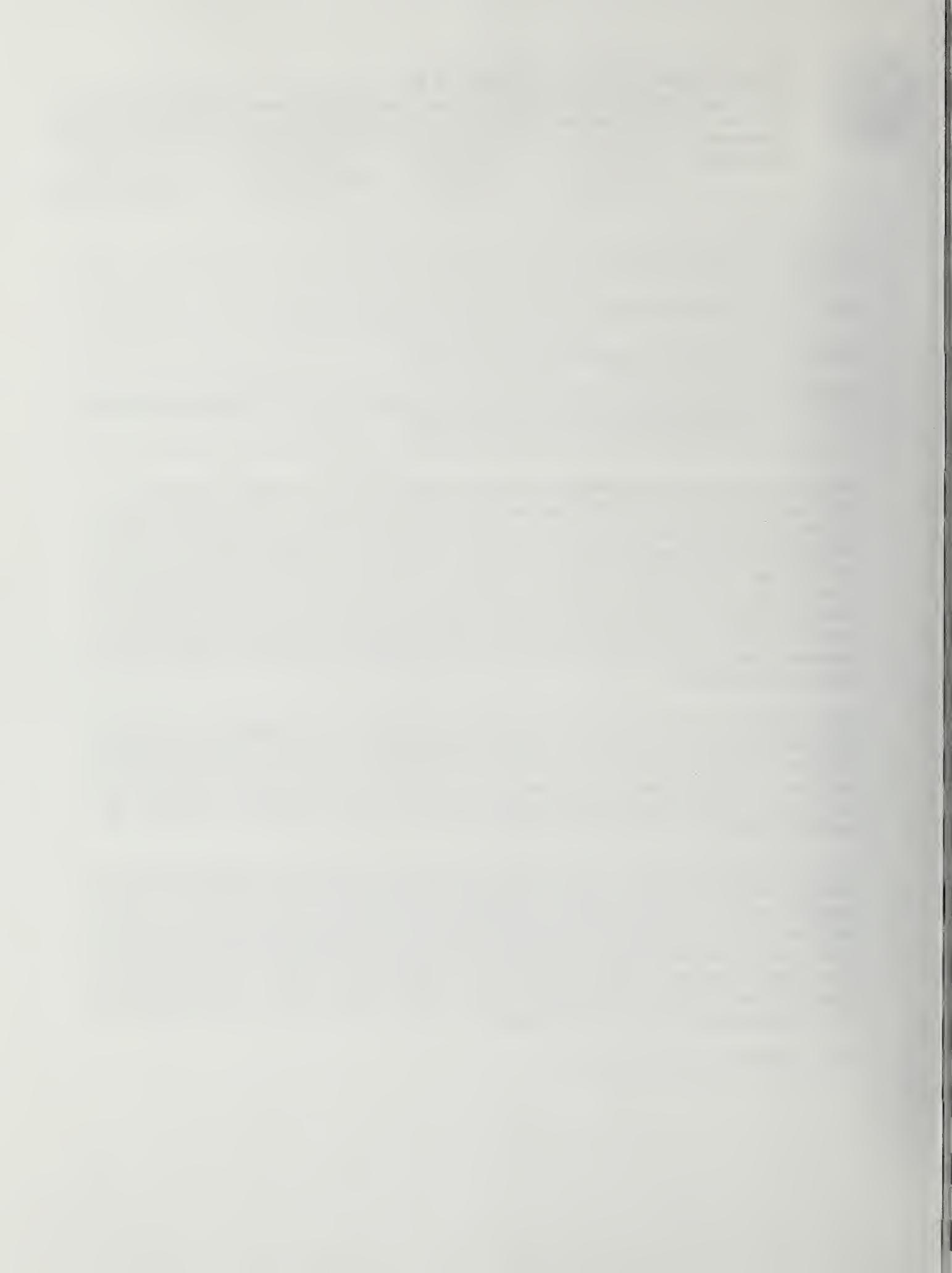
SUBJECT: Request for the Final Environmental Impact Report for the 1177 Market Street Project
(Planning Department File No. 2002.1179E)

This is the Draft of the Environmental Impact Report (EIR) for the 1177 Market Street Project. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Comments and Responses" that will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Comments and Responses document, along with notice of the date reserved for certification; others may receive a copy of the Comments and Responses and notice by request or by visiting our office. This Draft EIR together with the Comments and Responses document will be considered by the Planning Commission in an advertised public meeting and will be certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one document, rather than two. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them. If you would like a copy of the Final EIR, therefore, please fill out and mail the postcard provided inside the back cover to the Major Environmental Analysis division of the Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.



1177 Market Street Project

Draft Environmental Impact Report

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I. SUMMARY

A. PROJECT DESCRIPTION (P. 28)

The proposed project would replace existing uses, and construct a residential complex with ground-floor retail, on-site landscaping, and off-street parking at 1177 Market Street, at Eighth Street. The existing four- to seven-story Trinity Plaza Apartments include 377 studio and one-bedroom apartment units, some office space, a ground-floor restaurant, and approximately 450 off-street parking spaces. All of these existing uses would be removed from the four-acre project site.

The proposed project would construct three residential towers in phases, ultimately including 1,900 new residential units (approximately 1,411,000 gross square feet (gsf) of residential space). There would be 1,100 studio units and 800 one-bedroom units comprising the residential component of the project. 360 units would be rent-controlled, and up to 12 percent of the 1,540 non-rent-controlled units, or 185 units, would be designated as affordable pursuant to Section 315 of the *San Francisco Planning Code (Planning Code)*. The project would replace the existing 360 rent-controlled dwelling units with new studio units during the first phase of the project.

The proposed buildings would range from 18 to 26 stories in height (about 167 to 240 feet), with frontages along Market, Mission and Eighth Streets, and the Stevenson Street terminus. The project would include about 60,000 gsf of ground-floor retail space, with street frontages along Market Street, Mission Street, and portions of Eighth Street. The project would provide 63,000 square feet (sq. ft.) of open space. At the interior of the site (in the central area framed by the residential towers), the project would include a 42,000 square-foot plaza-level open space for use by residents. The remaining 21,000 sq. ft. would make up an entry court accessible to the public from Market Street and Eighth Street.

The project would include 1,450 off-street parking spaces for residential and short-term use in a five-level parking garage. The upper level of parking would be at Market Street grade, the B-1 parking level would be at Mission Street grade, and the three lower parking levels, B-2, B-3, and B-4, would be below street grade.

Freight and service loading areas would be accessed from Stevenson Street or Mission Street (via the service driveway). Stevenson Street is a mid-block service street that terminates at the project site, accessible from Seventh Street. The two-way driveway along the east side of the site would serve the loading/service court and the parking garage.

The project sponsor has identified the following objectives for the proposed project:

- Provide 360 rent-controlled units to replace the existing rent-controlled units on a one-for-one basis.
- Help fulfill San Francisco's need for centrally located, high-quality residential rental units for the San Francisco workforce and others wishing to live downtown;
- Create a fully-serviced, high-density neighborhood near downtown where residents can walk to work and use transit to meet daily needs, and have available parking for cars for recreational and similar uses;
- Create an architecturally distinctive development—of substantial scale and impact—that will enhance the visual and aesthetic qualities of the project block and the Mid-Market area, and complement the monumental architecture and urban design quality of the Civic Center;
- Provide a lively atmosphere along Market Street that will draw people to the area;
- Continue to provide short-term visitor parking to support civic, cultural, retail, and entertainment uses nearby; and
- Provide market-rate housing to residents at the lowest rents possible consistent with a reasonable return on investment.

The project would be specifically authorized through a Development Agreement entered into between the project sponsor and the San Francisco Board of Supervisors, under Chapter 56 of the Administrative Code. Pursuant to the Development Agreement, and consistent with the land uses, heights, and densities vested through that agreement, the project must obtain approvals under the *Planning Code*. Although the project site lies within the proposed Mid-Market Redevelopment Project Area, the Development Agreement would provide that the project is not subject to the land use controls of that Project Area, nor to the proposed Mid-Market Special Use District.

B. MAIN ENVIRONMENTAL EFFECTS

On the basis of an Initial Study published on July 5, 2003 (see Appendix A, p. A-1), the San Francisco Planning Department determined that an EIR was required. The Initial Study determined that certain effects of the project would either be insignificant or would be reduced to a less-than-significant level by mitigation measures included in the project. These include: utilities and public services; biology; geology and topography; water; energy and natural resources; noise; hazards; and cultural resources (historic and archaeological resources). Therefore, the EIR does not discuss most of these effects. The Initial Study also found that land use population and housing changes would not be significant, but noted that the topics would be discussed in the EIR for informational purposes (Section III. A and G).

The EIR analyzes visual quality, wind, shadows, air quality, and growth inducement; it concludes that the proposed project would not result in significant environmental impacts that could not be mitigated to a less-than-significant level. The EIR concludes that the project would contribute to a significant adverse cumulative Level of Service condition at Eighth Street/Mission Street. This would be an unavoidable significant impact.

LAND USE, PLANS, AND ZONING (P. 49)

The Initial Study found that land use effects would be less than significant, but a discussion is included in the EIR for informational purposes. The proposed project would replace the existing Trinity Plaza Apartments with a new residential complex, increasing the number of residential units on site from 377 to 1,900, and the number of off-street parking spaces from about 450 to 1,450. The amount of street-level retail and private and public open space would also increase under the proposed project.

The project site is in the *Downtown Plan* area of San Francisco and within the C-3-G (Downtown General Commercial) District, intended to serve as a citywide and regional center for a variety of uses including retail, office, hotel, entertainment, institutional, and high-density residential.

The proposed project would redevelop the site with a greater residential density than currently exists on the site, but would not disrupt or divide the physical arrangement of an established community. While densities would be greater than on the project site or than surrounding residential uses in the immediate vicinity, high-density residential use is permitted on this site. The project would intensity the current activities on the site and would be generally consistent with the planned uses and goals of the *Downtown Plan* and other applicable plans.

The Mid-Market Area is currently undergoing transition, and the proposed project and other major developments on the project block are part of a trend to increase the amount of high-density residential and commercial uses. While the project would increase densities on the project site and in the immediate vicinity compared to the existing condition, the project would be generally compatible with planned or under-construction uses on the project block. The project would not have a substantial adverse impact upon the existing character of the vicinity.

VISUAL QUALITY (P. 61)

The project would be constructed within a densely built urban area. The project would demolish a four- to seven-story, motel-style residential building and surface- and below-grade parking, and construct five residential towers, ranging from 18 to 26 stories in height, around a central open space area. The new buildings would be visible from near- and mid-range vantage points along Market, Mission and Eighth Streets, and to a lesser extent, from near- and far-range vantage points in surrounding areas including from Civic Center Plaza, notwithstanding topography and intervening buildings. The project would introduce new visual elements to the urban development pattern in its vicinity. Building B would extend the pattern of street wall development along Market Street. Buildings C and A would introduce a street wall base element of larger scale structures along Eighth and Mission Streets.

The new development would be consistent in scale with the under-construction 18-story GSA Building, located at the northwest corner of Mission and Seventh Street, the under-construction 23-story apartment building at 1160 Mission Street, located directly east of the project site, and the hotel proposed for 1125 Market Street.

The downtown area is characterized by mid-rise and high-rise buildings typically built to the sidewalk line, with a range of materials, design, and massing. The proposed project would introduce a group of buildings built to the sidewalk line, with contemporary design and materials, and varied massing. The new buildings would be substantially taller than the existing building on the site, and existing buildings south of Mission Street. The massing on the site's full frontage on Market Street, Eighth Street, and Mission Street would be of larger scale than most surrounding development. Some existing buildings in the area, such as the Ramada Plaza Hotel west of Eighth Street and the SF Mart between Ninth and Tenth Streets, have broad building frontages on Market Street that would relate in scale to the project. Those changes with the project, as in-fill development in an area designated for high density development, would not have an significant effect on visual quality. No views of hills or open space from Civic Center Plaza, United Nations Plaza, other parks, major roadways, or other public areas would be obstructed as a result of the proposed project. Therefore, the project would not have a demonstrable adverse aesthetic effect or would not substantially degrade visual quality in the vicinity.

WIND (P. 76)

The proposed project would generally have little effect on existing wind conditions. The average wind speed for all 30 sidewalk test points would remain about 13.4 mph. The range of wind speeds with the proposed project would be similar to existing conditions, with wind speeds in sidewalk pedestrian areas would ranging from 6 mph to 22 mph, compared with a range of 8 to 23 mph under existing conditions. The project would add six new exceedances of the *Planning Code* Section 148 11 mph pedestrian use criterion and eliminate five existing exceedances, for a total of 20 exceedances, one more than under existing conditions.

With the project, compared to existing conditions, wind speed in pedestrian areas would increase at 16 locations, remain unchanged at 4 locations and decrease at 10 locations. Wind at the three of the four interior plaza locations would be above the 11 mph sidewalk pedestrian comfort criterion. Implementation of Improvement Measure A.1, would reduce potential wind effects. Overall, wind speed increases associated with the proposed project would be nine mph or less. The project would also result in a decrease in wind speed at 10 locations.

With the cumulative scenario, the average wind speed for all 30 sidewalk test points would remain about 13.7 mph. Wind speeds in sidewalk pedestrian areas would range from 7 mph to 22 mph, compared with a range of 8 to 23 mph under existing conditions. Cumulative development would add one new exceedance of the pedestrian comfort criterion and eliminate one existing exceedance for a total of 20 exceedances, one more than under existing conditions.

Planning Code Section 148 also establishes as a hazard criterion an equivalent wind speed of 26 mph for a single full hour per year. No building or addition would be permitted that would cause wind speeds to exceed the hazard level of more than one hour of any year. The total duration of all wind hazard exceedances would be 144 hours per year with the project, compared with 148 hours per year under existing conditions, for reduction of 4 hours per year; the project would result in three locations with hazardous wind exceedances, compared to four locations with existing conditions. The project would thus not have a significant adverse effect on hazardous wind conditions. With the cumulative scenario, total duration of all wind hazard exceedances would be 169 hours per year, compared with 148 hours per year under existing conditions, an increase of 21 hours per year. However, while the cumulative scenario would increase the total annual hours of hazardous wind exceedances, the project would reduce the frequency of cumulative wind hazard exceedances along Seventh Street and eliminate cumulative wind hazard exceedances along Stevenson Street. Therefore, the proposed project would tend to reduce overall total hours of hazardous winds, and would not contribute to the cumulative increase in hazardous wind conditions.

SHADOWS (P. 86)

Civic Center Plaza, about two blocks north of the project site, is under the jurisdiction of the Recreation and Park Department, and is subject to *Planning Code* Section 295. The proposed project would add shade to the southeastern corner of Civic Center Plaza, from about September 1 to September 30, and from about March 10 to April 10, for the first 5 to 15 minutes after one hour after sunrise on those days. The project would add, on an annual basis, about 0.00064 percent new square-foot-hours of shade to Civic Center Plaza. According to shadow guidelines adopted by the Planning Commission, Civic Center Plaza has an allowable

cumulative shadow limit of 1.12 percent, with existing buildings consuming 1.1159 percent of the available sunlight. The remaining allowable increase is therefore 0.0041 percent in annual square-foot-hours. The adopted guidelines for Civic Center Plaza also note a goal of limiting new shadow in afternoon periods. The project's shadow effects would be within this annual limit, and would affect a limited area of the plaza for about 15 minutes a day in the early morning for two months of the year. Based on the amount and location of the project's shadow effects on Civic Center Plaza, the impacts would not be considered a significant adverse environmental impact. This finding is subject to a final determination by the Planning Commission, acting with the advice of the Director of the Recreation and Park Department and in consultation with the Recreation and Park Commission.

The project would also add shade to portions of the Fulton Street Mall and United Nations Plaza (open space under the jurisdiction of the Department of Public Works and not subject to Section 295). The project shade on United Nations Plaza would increase from about August 30 to late December, and decrease from December to about mid-April. On an annual basis, the proposed project would result in a 1.76 percent increase in shade square-foot hours.

The increased shade on United Nations Plaza would be limited to morning hours, with greatest effects during winter months. The use of the plaza for the farmer's market and crafts market occur year round, independent of weather conditions. The project shade conditions would not substantially affect the market uses. Those effects would therefore not be a significant adverse impact on the environment.

The project would shade Fulton Street Mall from about September 20 to December, and from December to about March. On an annual basis, the project would result in a 0.26 percent total increase in shade square-foot hours. The increased shade on Fulton Street Mall would affect areas not currently developed as open space. If Fulton Street Mall were more intensively developed as open space in the future, the project shading, occurring no later than about 9:50 a.m., would continue to not have a substantial adverse effect on its overall use.

There is extensive shadow on these spaces due to existing buildings, and project shadow effects would not be expected to substantially change overall shading or adversely affect the use of these open spaces. These would not be considered significant shadow effects.

TRANSPORTATION (P. 104)

Traffic

The proposed project would generate approximately 23,850 total daily person-trips and 3,437 PM peak-hour person-trips. The existing uses on-site currently generate about 3,000 daily and 513 PM peak-hour person-trips. The proposed project would thus generate approximately 20,844 net new daily person-trips and 2,924 net new PM peak-hour person-trips. Overall, during the weekday PM peak hour, the project would generate the following net-new person-trips by mode: 665 auto, 892 transit, 1,041 walk, and 326 other. The proposed project would generate 441 net new weekday PM peak-hour vehicle-trips, of which 263 would be inbound to the site and 178 would be outbound from the site. The addition of these net-new vehicle-trips during the PM peak hour would result in nominal changes in the average delay per vehicle at the study intersections. Under existing-plus-project conditions, study intersections that currently operate at LOS D or better would be expected to continue operating at LOS D with no significant changes; the Mission Street/South Van Ness Avenue intersection would continue to operate at LOS E.

When traffic from other nearby development projects is added to the existing-plus-project scenario, all study intersections, except for Mission Street/Eighth Street, would continue operating at the same LOS as under the existing-plus-project scenario, with no significant changes in vehicle delays; the Mission Street/Eighth Street intersection would degrade from LOS D to LOS E under this scenario. Trips generated by the proposed project would contribute less than one percent to the critical volumes that determine the overall operating condition of this intersection.

Transit

The project site is well-served by local and regional transit services, including several surface MUNI bus lines along Market and Mission Streets, and MUNI and BART service accessible via the adjacent Civic Center MUNI /BART station. The proposed project would generate approximately 892 weekday PM peak-hour transit trips. The project would not substantially affect available capacity on any transit carrier.

Pedestrians

The proposed project would generate about 1,933 net-new PM peak-hour pedestrian trips, including 1,041 walk trips and 892 walk-to-transit trips). Due to the concentration of transit services in the vicinity, the transit-related pedestrian trips would occur within one or two blocks of the project site. Pedestrian LOS on sidewalks adjacent to the proposed project site would continue to operate at LOS A or LOS B. Potential vehicle/pedestrian conflicts could occur at project driveway entrances and exits; these conflicts would be less than significant due to pedestrian volumes and the installation of safety/warning devices.

Bicycles

Market Street is major bicycle route for trips to and from downtown, and experiences moderate bicycle volumes; it can also become congested with bicycle traffic during Critical Mass events. The project would generate additional vehicle traffic along Market and Eighth Streets, potentially conflicting with existing bicycle traffic. The proposed project would not reconfigure existing streets, sidewalks or bike lanes, and would not have a significant impact on bicycle movement or safety. The project would provide two bicycle storage rooms within the parking garage, capable of accommodating about 50 bicycles.

Parking

The project would include 1,450 off-street parking spaces for residential and short-term use in a five-level parking garage, including three levels below grade. Based on the *Planning Code* requirements for developments in the C-3 District, the proposed project would be required to provide 475 spaces for the residential use, but none for the retail/ restaurant uses. Thus, as the proposed project would provide a total of 1,450 parking spaces, the project would exceed the *Planning Code* requirement. This exceedance would be permissible with conditional use authorization per Section 204.5 of the *Planning Code* from the Planning Commission. The on-site parking would also be permitted under the terms of the Development Agreement to be executed by the City and the project sponsor, under San Francisco Administrative Code Chapter 56.

The parking demand would exceed the parking supply by 693 spaces. The project retail/restaurant uses would generate a total long-term and short-term project demand for 173 spaces. This demand could be accommodated in the project parking, which would have 250 public parking spaces and thus exceed the estimated demand by 77 spaces. The residential uses would generate a demand for 2,143 spaces compared to the proposed 1,200 residential parking spaces. The project would thus have a shortfall of 770 residential parking spaces.

The existing parking facilities in the study area operate with some available capacity (83 percent occupied or approximately 479 spaces available during the midday and 26 percent occupied or 2,077 spaces available during early evening). Several of these parking facilities would be removed in the near future as a result of proposed development projects. It is difficult to estimate how many parking spaces would be lost and future parking conditions in the study area would be because of on-going review of development projects. However, it is possible that a portion or all unmet residential parking demand could be accommodated by these existing facilities.

Under *California Public Resources Code* Section 21060.5, “environment” means “the physical conditions which exist within the area which would be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.” San Francisco does not consider parking supply as part of the permanent physical environment. Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Therefore, parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA.

Future (2020) Cumulative Conditions

A year 2020 cumulative analysis was conducted to evaluate the future traffic conditions in the vicinity of the proposed project, based on growth rates derived from the *Mid-Market and South-of-Market Area Transportation Study*. The year 2020 condition is a future scenario based on the annual growth rate for traffic that would occur with or without the proposed

project. Cumulative traffic growth would occur from other developments in the project area, as well as from the proposed project. These future traffic volumes were used to forecast the levels of service at the study intersections under 2020 cumulative conditions during the weekday PM peak hour.

Under future (2020) cumulative conditions, two of the study intersections would operate at LOS E or LOS F: Eighth Street/Mission Street and South Van Ness Avenue/Mission Street. At the Eighth Street/Mission Street intersection, there would be significant cumulative traffic impacts, due to anticipated background traffic growth, which would cause LOS at this intersection to deteriorate to LOS F under 2020 cumulative conditions. At the intersection of Mission Street/Eighth Street, project-generated traffic would contribute to 19 percent of the future volume for the critical southbound left turn movement. Therefore, the project's traffic would represent a considerable contribution to future cumulative traffic conditions, and the project would have a significant traffic impact. Mitigation Measure B.1 in Section IV could be implemented. However, a feasibility study would be required prior to implementation; therefore, the project is considered to have a significant, unavoidable impact for the cumulative condition.

Loading

The proposed project would generate a total of 56 daily truck trips, or a demand for approximately three (3.27) peak-hour loading spaces and three (2.61) average-hour loading spaces. The proposed project would provide nine off-street loading spaces (five full-size and four van-size spaces) and thus satisfy demand. The nine spaces would meet *Planning Code* requirements.

Construction Effects

Potential impacts associated with construction activities are not considered significant as they are temporary and of short-term duration. If the construction of the proposed project occurred simultaneously with the proposed 1125 Market Street Project, the 1160 Mission Street Project, and the GSA Building, disruptions to traffic and transit operations could potentially occur. The contractor and project sponsor would work with DPW, DPT, MUNI, and the project

sponsors of the neighboring projects to coordinate construction schedules, so that impacts are minimized.

AIR QUALITY (P. 146)

The proposed project would contribute to local and regional air pollutant emissions, primarily from increased vehicle traffic. The proposed project would generate about 1,900 net-new daily vehicle trips. These vehicle trips would emit about 21.2 pounds per day of reactive organic gases (ROG), 18.05 pounds per day of nitrogen oxides (NO_x), and about 34.95 pounds per day of inhalable fine particulates (PM₁₀). None of these emission levels would reach the 80 pounds-per-day threshold established by the Bay Area Air Quality Management District (BAAQMD); therefore, the project would not have significant impacts on regional air quality.

Localized carbon monoxide (CO) emissions were analyzed at the intersections near the proposed project site where levels of service would be LOS D or worse. Under existing-plus-project and future (2020) cumulative conditions, the federal and state one-hour and eight-hour standards would not be exceeded.

POPULATION AND HOUSING (P. 159)

Potential population and housing changes resulting from implementation of the proposed project were addressed in the Initial Study (Appendix A, pp. A-18-19), and it was determined that these effects would not have a significant effect on the environment. Physical environmental effects associated with changes in on-site population and housing, including transportation, air quality, and the potential for growth inducement, are addressed elsewhere in the EIR.

The project would avoid the displacement of the residents of the existing Trinity Plaza Apartments. The proposed project would demolish the existing 377-unit apartment building and the residents, if they so choose, would be moved into the new building, Building A (440 units), with the opportunity to retain their current rent (the project sponsor would provide 360 rent controlled units to replace the existing rent-controlled units on a one-one basis). After the residents have moved into Building A, the existing Trinity Plaza Apartments would then be demolished; Buildings B and C would then be constructed.

If all existing units were occupied, there could be as many as 575 residents living in Trinity Plaza Apartments, based on an average size of 1.52 persons-per-household. The actual number of residents is much lower due to small apartment size, turnover and vacancy rates, and other factors. In January 2006, the project sponsor reported 280 units occupied with about 400 residents. The owner has ceased re-renting units which become vacant.

The proposed project's 1,900 units would consist of about 1,100 studios and 800 one-bedrooms. About 12 percent, or 185, of the 1,540 non-rent-controlled units would be dedicated inclusionary housing, affordable to low- and/or moderate-income residents of San Francisco. At full occupancy, the project would provide housing for about 2,888 residents, based on an average household size of 1.52 persons-per-household (*2000 Census Tract 176.01*), or a net increase of about 2,313 residents on site.

GROWTH INDUCEMENT (P. 164)

A project may foster spatial, economic, or population growth in a geographic area and would be considered growth inducing if it meets any one of the following criteria: removal of an impediment to growth; economic expansion or growth; establishment of a precedent setting action, innovation, or change; or development of or encroachment on an isolated area of open space. Growth is an inherent impact of the proposed 1177 Market Street Project. The proposed project would increase the density of residential and commercial development at the project site over existing conditions: the number of dwelling units would increase from 377 to about 1,900, and the retail commercial space would increase from about 12,500 sq. ft. to approximately 60,000 sq. ft. The project would be expected to increase population and housing growth in the project area which would lead to local economic benefits.

This added development would improve the underutilized Mid-Market area and offer businesses and residents opportunities to be located within a developed area of the City rather than shifting this future growth to areas outside of the City. The proposed project is located in an urban area that is already serviced by the City's municipal infrastructure and public services. No expansion to municipal infrastructure or public services not already under consideration or included with the project would be required to accommodate new development directly or indirectly induced by the proposed project. The proposed project

would not result in development of new public services that would accommodate significant further growth. Therefore, because none of the four growth-inducing criteria described above would occur as a result of the proposed project, the project is not considered to be growth inducing.

C. MITIGATION AND IMPROVEMENT MEASURES (P. 166)

In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the project. Some of these measures have been, or would be, adopted by the project sponsor and, therefore, are proposed as part of the project; some are under consideration. Improvement measures are suggested to reduce adverse environmental effects not otherwise identified as significant environmental impacts. Implementation of some measures may be the responsibility of public agencies.

Each mitigation measure and its status are discussed below. Measures from the Initial Study (see Appendix A) proposed as part of the project are indicated with an asterisk (*) and follow mitigation measures of topics discussed in the EIR. Mitigation measures identified in this EIR and in the Initial Study would be required by decision makers as conditions of project approval unless they are demonstrated to be infeasible based on substantial evidence in the record.

A. WIND

Improvement Measures Proposed as Part of the Project

Interior plazas within the proposed project have winds generally exceeding the pedestrian comfort criterion. Interior plazas and walkways should be landscaped to reduce wind and improve usability.

- A.1 Use porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) when possible and design wind sheltering elements high enough to shelter the interior plazas.
- A.2 Plant street trees along the Eighth Street frontage of the project to reduce the cumulative impacts affecting Eighth Street. Mature landscaping can reduce wind speeds up to 2 mph and can reduce occurrence of hazardous winds.

B. TRANSPORTATION

Mitigation Measures

Year 2020 Cumulative Conditions

The proposed project would have a significant future cumulative traffic impact at the intersection of Mission Street/Eighth Street due to the project's contribution to the critical southbound left turn movement.

- B.1 Adjust the signal timing of the intersection such that three seconds of green time is deducted from the east-west approach (Mission Street) and added to the southbound approach (Eighth Street) to potentially mitigate this impact. The subsequent LOS for the intersection would be LOS D with a delay of 54.8 seconds. It should be noted that any change to the signal timing along Mission Street could potentially affect signal progression along the corridor and interfere with MUNI operations on this Transit Preferential street. A feasibility study would be required prior to implementation of this cumulative mitigation measure. If adjusting the signal timing is found infeasible, the project would have an unavoidable significant impact for the future cumulative condition.

The westbound approach to the intersection of Stevenson Street/Seventh Street would operate at LOS E under future cumulative conditions. This poor LOS would be due primarily to the difficult entry onto Seventh Street from Stevenson Street during the PM peak hour.

- B.2 "Keep Clear" would be painted in the center of the intersection of Stevenson Street/Seventh Street to allow vehicles entering Seventh Street a sufficient gap.

Improvement Measures Proposed as Part of the Project

Existing-Plus-Project Conditions

Parking Improvement Measures

The project would not meet its estimated residential parking demand of 1,970 spaces based on calculations using the parking demand rates in the *SF Guidelines*. The project would provide 1,200 parking spaces for the residential units and would thus result in an unmet demand of approximately 770 spaces.

- B.3 The proposed project could potentially reduce parking demand by implementing Transportation Demand Management strategies including City CarShare, CommuterChex, and RIDES.

- B.4 The project sponsor would provide “Full” electronic message signs to the public to indicate if the parking garage is closed or unavailable. Clear indication to public on parking garage occupancy would avoid queuing and sidewalk blockage in front of the garage entrance.

Construction Improvement Measures

Although construction impacts would be temporary and of short-term duration, the following improvement measures would lessen their impacts.

- B.5 Any construction traffic occurring between 7:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:00 p.m. would coincide with peak-hour traffic and could impede traffic flow. The impact of lane closures and construction traffic would decrease the capacity of streets and slow the movement of traffic (including MUNI buses). To the extent possible for future projects in the study area, truck movements should be limited to the hours between 9:00 a.m. and 3:30 p.m. to minimize disruption of the general traffic flow on adjacent streets.

The project sponsor and construction contractor(s) would meet with the Traffic Engineering Division of the Department of Parking and Traffic, the Fire Department, and the Planning Department to determine feasible traffic mitigation measures to reduce traffic congestion and pedestrian circulation impacts during construction of the project. In addition, to ensure that construction activities would not impact MUNI bus stops or routes in the area, the project sponsor should coordinate with MUNI’s Chief Inspector prior to construction. In addition, the project sponsors of the proposed project, the 1125 Market Project and the 1160 Mission Project should work together with DPW, DPT, and MUNI to coordinate their construction schedules with that of the Federal Building so that disruptions to vehicle and pedestrian traffic are minimized.

C. NOISE

Mitigation Measures as Part of the Proposed Project

- *C.1 In the event that pile driving becomes necessary for the project foundation, the project sponsor shall require that its geotechnical engineering contractor conduct a pre-construction assessment of existing subsurface conditions and the structural integrity of nearby buildings subject to pile driving impacts prior to receiving a building permit. If recommended by the geotechnical engineer, for structures or facilities within 50 feet of pile driving, the project sponsor shall require ground-borne vibration monitoring of nearby structures. The project sponsor shall also require its construction contractor to use noise-reducing pile driving techniques if nearby structures are subject to pile driving noise and vibration. These techniques are pre-drilling pile holes (if feasible, based on soils) to the maximum feasible depth, installing intake and exhaust mufflers on pile driving equipment, vibrating piles into place when feasible, and installing shrouds around the pile driving hammer where feasible.

- *C.2 The project sponsor shall require project construction contractor(s) to pre-drill holes to the maximum depth feasible on the basis of soil conditions. Contractors shall be required to use construction equipment with state-of-the-art noise shielding and muffling devices.

D. AIR QUALITY

Mitigation Measures as Part of the Proposed Project

- *D.1 The project sponsor shall require the contractor(s) to spray the site with water during demolition, excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand, or other such material; and sweep surrounding streets during demolition, excavation, and construction at least once per day to reduce particulate emissions.
- *D.2 Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor shall require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

E. GEOLOGY/TOPOGRAPHY

Mitigation Measures as Part of the Proposed Project

- *E.1 One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractor(s) shall follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponsor shall ensure that the construction contractor(s) conducts a pre-construction survey of existing conditions and monitors the adjacent buildings for damage during construction, if recommended by the geotechnical engineer.
- *E.2 As dewatering would be necessary, the project sponsor and its contractor(s) shall follow the geotechnical engineers' recommendations in the geotechnical report regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering. The Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments shall be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge shall be used to halt this settlement. The project

sponsor shall delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street shall be born by the project sponsor.

- *E.3 The project sponsor and its contractor(s) shall follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems shall be modified as necessary in the event that substantial movements are detected.

F. WATER QUALITY

Mitigation Measures as Part of the Proposed Project

- *F.1 As dewatering would be necessary, the project sponsor shall follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.
- *F.2 As dewatering would be necessary, groundwater pumped from the site shall be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.
- *F.3 The project sponsor shall require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

G. HAZARDOUS MATERIALS

Mitigation Measures as Part of the Proposed Project

- *G.1 The project sponsor shall implement the Voluntary Cleanup Agreement with DTSC. If required by DTSC, the project sponsor shall implement the soil sampling procedures of the Sampling and Analysis Plan (SAP), subject to review and approval of DTSC, including soil borings, sampling protocol, classification, and analysis at a certified hazardous materials laboratory, to determine the level of contamination. Upon completion of activities contemplated by the Voluntary Cleanup Agreement, the project sponsor will either prepare a site investigation report presenting the investigation methodology employed, findings, and conclusions for the subject site or provide certification from DTSC that it is satisfied with respect to the previously unresolved case. Any conclusions and/or recommendations from DTSC or the site investigation report shall be implemented by the project sponsor during project demolition and construction efforts if not already completed prior to commencement of construction activities.

- *G.2 At the time of excavation, excavated soils will be tested and classified and treated and/or reused on-site and/or disposed of at an appropriate facility in accordance with determinations made and approved by the San Francisco Department of Public Health (DPH) and/or a State agency in accordance with a Soil Excavation Plan (SEP) to be approved by DPH or the designated State agency. Reuse of contaminated soils on-site may require a risk assessment to determine potential effects to future site occupants and/or occasional utility maintenance workers. The project sponsor shall implement those measures set forth in the Soil Excavation Plan dated March 20, 2003, regarding soil excavation.
- *G.3 The project sponsor shall comply with BAAQMD regulations and all applicable laws with respect to the abatement of asbestos-containing material (ACM) and shall implement those recommendations contained in the Phase I Environmental Site Assessment for the project prepared by PSI dated September 24, 2002 for development of an Operations and Maintenance Program that meets current EPA and OSHA regulations for monitoring of ACM and for isolation and abatement of ACM by a licensed asbestos contractor.

H. CULTURAL RESOURCES

Mitigation Measures as Part of the Proposed Project

Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources.

- *H.1 The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant shall implement the ARD/TP. The consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant's work shall be conducted in accordance with this measure and with the requirements of the project archaeological research design and treatment plan (Archeo-Tec, *Archaeological Research Design/Treatment Plan for the Trinity Plaza Apartments Project*, April 21, 2003) at the direction of the Environmental Review Officer (ERO). In instances of any inconsistency between the requirements of the project archeological research design and treatment plan and of this archaeological mitigation measure, the requirement of the latter shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-

significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval a final archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- The proposed project shall be redesigned so as to avoid any adverse effect on the significant archaeological resource; or
- A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that the archaeological monitoring program shall be implemented, the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils-disturbing activities commencing. The ERO in consultation with the archaeological consultant shall determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential logical resources and to their depositional context;
- The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify

the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;

- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;
- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accordance with the archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO have met and consulted on the scope of the ADRP prior to preparation. The ADRP identifies how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP identifies what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP includes the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.

- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California logical Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three (3) copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may

require a different final report content, format, and distribution than that presented above.

D. ALTERNATIVES (P. 177)

ALTERNATIVE A: NO PROJECT

The No Project Alternative would entail no change to the project site. The Trinity Plaza Apartment complex would not be demolished, and no new residential, retail, commercial, parking or open space would be developed. This alternative would not, however, preclude future proposals for redevelopment of the project site, including similar development envisioned in the *Mid-Market Redevelopment Plan*. If the No Project Alternative were implemented, none of the impacts or benefits associated with the proposed project would occur.

ALTERNATIVE B: REDUCED PROGRAM ALTERNATIVE

DESCRIPTION

The Reduced Program Alternative is intended to respond to the potential traffic impacts of the proposed project. Under this alternative, the project site would be developed in a manner similar to the proposed project (described in Section II, Project Description), although at one-fourth of its proposed size (for a total of 485,750 sq. ft. compared to 1,943,000 sq. ft. for the proposed project). The following notable differences would also apply:

- The residential component would be reduced from 1,523 net new units to 381 net new units in one building instead of three, for a total of 758 units versus the proposed 1,900 units. The existing 337-unit building would remain.
- The proposed 12,000 sq. ft. restaurant would be reduced to 3,000 sq.ft.
- The retail component would be 12,000 sq. ft. compared to up to 48,000 sq.ft. with the proposed project.
- The number of new parking spaces provided on site would decrease by approximately 1,088 spaces from the proposed development program, resulting in about 362 parking spaces. Approximately 300 of the new parking spaces would be for residents only and 62 would be open to the public. This alternative also represents a reduction of 88 parking spaces from the 450 parking spaces currently at the site.

IMPACTS

The Reduced Program Alternative would not meet the goals of the proposed *Mid-Market Redevelopment Plan* and the *Market and Octavia Plan*. This alternative would have characteristics similar to those of the proposed project, and its potential environmental effects—except as noted below—would be similar as described for the project in Section III, Environmental Setting and Impacts, and the Initial Study, Appendix A. Mitigation and improvement measures described in Section IV would also apply to this alternative. Differences between the proposed project and this alternative, with respect to effects on local transportation, wind, and shadows, are discussed below.

Traffic

With the Reduced Program Alternative, approximately 11 vehicles could be added at the Eighth Street and Mission Street intersection during the PM peak hour and still maintain the existing LOS D (without enforcement of the bus only lane), compared to 43 vehicles with the proposed project. All of the study intersections that currently operate at LOS D or better would continue operating at LOS D or better with no significant changes to the delays at any of the intersections.

Therefore, the Reduced Program Alternative would not have a significant adverse effect on intersection LOS conditions. In contrast, the proposed project would change the Mission Street/Eighth Street intersection LOS from D to E, and would be considered to have a substantial contribution to a cumulative LOS E, with increased delay. Section IV, Mitigation Measures, Measure B.1, identifies signal timing changes at the Eighth Street/Mission Street intersection that maintain LOS D with project and cumulative conditions.

Wind

Under the Reduced Program Alternative, a new three-story, mixed-use building would be constructed. That building would not be of sufficient height to block wind currents encountering the project site (based on a review of wind tunnel studies conducted for the proposed project). Therefore, this alternative would not substantially change wind conditions in the project vicinity.

Shadow

The Reduced Program Alternative would not cause substantial net new shading on the public open space in the project vicinity covered by *Planning Code* Section 295 (Civic Center Plaza) at any time of year from one hour after sunrise to one hour before sunset. Nor would the project add shade to Fulton Street Mall or the United Nations Plaza. The shadows cast on Market Street and north of Market Street, as described in Section III.D, Shadows, would be substantially reduced because the Reduced Program Alternative development would be 23 stories shorter than the proposed project.

C. ALTERNATIVE C: RETAIL ONLY

DESCRIPTION

The Retail Only Alternative would involve adding a new building with 21,600 sq. ft. of retail space and 5,400 sq. ft. of restaurant space to the project site, without demolishing the existing 377 residential units. The existing, approximately 7,100 sq. ft. restaurant would also remain. The Retail Only Alternative would represent a 45-percent reduction in total retail floor area compared to the proposed project. The Retail Only Alternative building would be two stories high, and would front Eighth and Mission Streets.

IMPACTS

With this alternative, none of the impacts associated with the proposed project would occur. The environmental characteristics of this alternative would generally be as described in the environmental setting sections of Section III. Urban design, visual quality, shadow and wind effects, circulation, parking, and other physical characteristics of the site would not change as a result of the alternative, but rather as a result of other, nearby development. Population, housing, and employment characteristics at the existing site could change under this alternative, as a result of market forces and implementation of the proposed Mid-Market Redevelopment Plan. This alternative would be inconsistent with key goals of the *Downtown Plan* and the proposed *Mid-Market Redevelopment Plan*. The Retail Only Alternative would have the advantage of allowing for some local-serving retail uses on the site.

Like the Reduced Program Alternative, the Retail Only Alternative would add only about 11 vehicles to the Eighth and Mission Streets intersection (compared to 43 vehicles with the proposed project) to eliminate the traffic impact identified in Section III. E. While the Retail Only Alternative is more of a borderline condition for traffic impacts than the Reduced Program Alternative, all of the study intersections that currently operate at LOS D or better would still operate at LOS D or better with no significant changes to the delays at any of the intersections, and therefore, this alternative would not have a significant adverse effect on intersection LOS conditions.

C. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Impacts in the following issue areas would be less than significant with implementation of the proposed project: wind, visual quality, shadows, growth inducement, air quality, land use, population and housing, noise, utilities and public services, biology, geology and topography, water, energy and natural resources, hazards, and cultural resources. Impacts in those issue areas would also be less than significant with implementation of the Reduced Program and Retail Only Alternatives, because the alternatives would involve a similar area of disturbance and would result in some of the same increases in site use by residents. Based on this preliminary analysis, the environmentally superior alternative would be the Reduced Program Alternative from a cumulative traffic perspective.

E. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Preparation of the EIR identified the following areas of controversy or unresolved issues regarding the proposed 1177 Market Street project, which are addressed in this document:

- An area of controversy has been the issue of whether residents from rent-controlled units would be displaced. As noted in the Population and Housing section (see Section III. G), none of the existing residents would be displaced with the proposed project. The proposed project would demolish the existing 377-unit apartment building located on site and the current tenants, if they so choose, would be moved into the first building constructed Building A (440 units) and would retain their current rent.
- Parking requirements and supply for residential uses in downtown San Francisco have been the subject of controversy. The EIR identifies *Planning Code* parking requirements for the project; proposed parking supply; and parking demand with the project.

- These would be a significant and unavoidable impact with the proposed project, from the cumulative impact of traffic at the Eighth Street and Mission Street intersection, reducing the LOS from D to E for the critical left-turn movement. As noted in the Transportation Section, III. E, the mitigation measure that could potentially reduce this significant impact—adjusting the signal timing by 3 seconds—would have to be analyzed first for potential secondary effects on MUNI operations. Thus, this impact is considered to be significant and unavoidable.

II. PROJECT DESCRIPTION

The project sponsor, Trinity Properties, Inc., proposes to replace an existing four- to seven-story apartment building (Trinity Plaza Apartments, originally developed as the Del Webb Towne House Motel), which contains 377 residential rental units, including 360 rent-controlled units, a ground-floor restaurant, and surface and below-grade parking for approximately 450 vehicles. The proposed project would include three buildings¹—ranging from 18 to 26 stories, with varied roof heights ranging from approximately 167 to 240 feet—with a total of approximately 1,943,000 gross square feet (gsf). The proposed buildings would include up to 1,900 residential rental units (including approximately 1,100, or 58 percent, studio units, and 800, or 42 percent, one-bedroom units), and up to 60,000 gsf of retail uses at street level. The project would be phased, with construction of approximately 440 units first, and the remainder of the phasing to be determined. The project would replace the existing 360 rent-controlled dwelling units with new studio units during the first phase of the project. Twelve percent of the other 1,540 new units (1,900 minus 360 rent controlled units = 1,540 units), or 185 of the residential units, would be designated affordable pursuant to the standards of Section 315 of the *San Francisco Planning Code (Planning Code)*. Parking for approximately 1,450 vehicles (1,200 accessory to residential use) would be provided for residential and public parking on four (4) levels, including three (3) levels below grade. The project would include five (5) loading spaces. The project would provide approximately 63,000 square feet (sq. ft.), or about 1.4 acres, of usable open space, with approximately 42,000 sq. ft. for residents' exclusive use in a central courtyard and the remaining 21,000 sq. ft. in an entry court accessible to the public, with access from Market Street and Eighth Street.

A. PROJECT OBJECTIVES

The project sponsor has identified the following objectives for the proposed project:

- Provide 360 rent-controlled units to replace the existing rent-controlled units on a one-for-one basis.

¹ The third building, to be constructed on Eighth Street in a “C-shape,” would initially be two buildings built separately and later joined. These buildings would be designated as “C1” and “C2.”

- Help fulfill San Francisco's need for centrally located, high-quality residential rental units for the San Francisco workforce and others wishing to live downtown;
- Create a fully-serviced, high-density neighborhood near downtown where residents can walk to work and use transit to meet daily needs, and have available parking for cars for recreational and similar uses;
- Create an architecturally distinctive development—of substantial scale and impact—that will enhance the visual and aesthetic qualities of the project block and the Mid-Market area, and complement the monumental architecture and urban design quality of the Civic Center;
- Provide a lively atmosphere along Market Street that will draw people to the area;
- Continue to provide short-term visitor parking to support civic, cultural, retail, and entertainment uses nearby; and
- Provide market-rate housing to existing tenants at the lowest rents possible consistent with a reasonable return on investment.

B. PROJECT LOCATION

The project site is located at 1177 Market Street and is bounded by Market Street to the north, Eighth Street to the west, and Mission Street to the south, in the greater Downtown San Francisco area (see Figure 1). The Trinity Plaza Apartments, located at 1169 Market Street, are entirely within the 1177 Market Street site. The project site occupies Assessor's Block 3702, Lots 39, 51, 52, and 53, and a portion of former Jessie Street. The site area is 177,295 sq. ft., or about 4-acres in area. (While Market Street and Mission Street have a northeast-southwest alignment, locations are referred to as north or south of Market Street, or east and west of Eighth Street or parallel streets, by convention.)

The project site is within the C-3-G (Downtown-General Commercial) District, and in the 120-X (along Market Street), 150-X (in the middle portion), and 240-S (in the southern portion) Height and Bulk Districts. The C-3-G Zoning District is described in *Planning Code* Section 210.3 as composed of a variety of uses including retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. The district permits a base floor area ratio (FAR) of 6:1.



Project Site

Proposed Mid-Market Redevelopment Plan Project Area



0

1500 ft (APPROXIMATE)

.27.05

Source: Clement Designs, EIP Associates

1177 Market Street Project

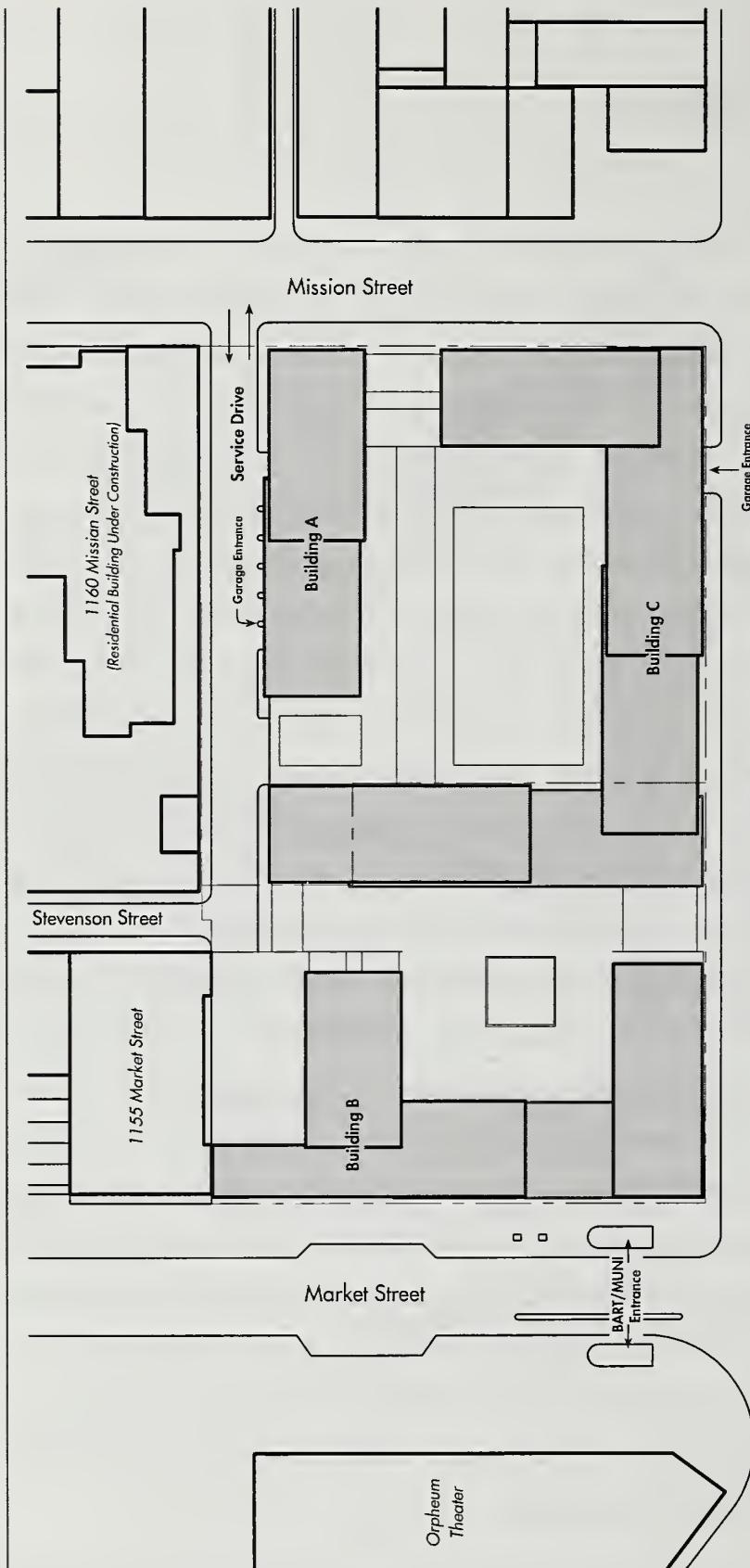
FIGURE 1: PROJECT LOCATION

C. PROJECT CHARACTERISTICS

PROJECT DESCRIPTION

The proposed project would replace the existing four- to seven-story Trinity Plaza Apartments, which contains 377 residential rental units (355 studios and 22 one-bedroom units). The proposed project would include construction of three residential apartment buildings (referred to as Buildings A, B, and C), with up to 1,900 residential units (1,100 studio units and 800 one-bedroom units), approximately 60,000 gsf of retail/personal services/restaurant uses, and parking for approximately 1,450 vehicles (see Figure 2).² The buildings would range from 18 to 26 stories, with varied roof heights ranging in height from approximately 167 to 240 feet. The project would replace the 360 existing rent-controlled dwelling units at the site with new studio units during the first phase of the project. Twelve percent of the other 1,540 residential units, or 185 units, would be designated affordable pursuant to the standards in Section 315 of the *Planning Code*. All retail uses would be located at street level, primarily along the Market and Mission Streets frontages, and also fronting on the new public open space provided by Building B, and, in a later phase, along a portion of the Eighth Street frontage. Figure 2 illustrates the general configuration of the project buildings. Buildings A and C would form a courtyard that would provide residential open space (see Figure 5, p. 35). Building B would front on Market Street and would form a courtyard that would provide public open space with a pedestrian way aligned as an extension of Stevenson Street to the east (see Figure 4, p. 34). A service drive from Mission Street would provide access to parking and loading areas (see Figure 3, p. 33). The service drive would also connect to Stevenson Street. There would also be a pedestrian way from Market Street to the courtyard and the Stevenson Street “extension.” The project retail space would front Market Street, public open space to the south, Eighth Street, and Mission Street (see Figure 4, p. 34). Figures 2 to 10, pp. 32 to 40, illustrate the proposed site plan, floor plans, and typical elevations of the project. Table 1 summarizes the project characteristics. The project would include a total of 1,943,000 gsf of residential, retail, and parking and loading space.

² The actual mix of studio and one-bedroom units may change over time as the design changes or as market conditions demand.



1177 Market Street Project
FIGURE 2: SITE PLAN

Source: Arqlectionica, Clement Designs
1/30/06

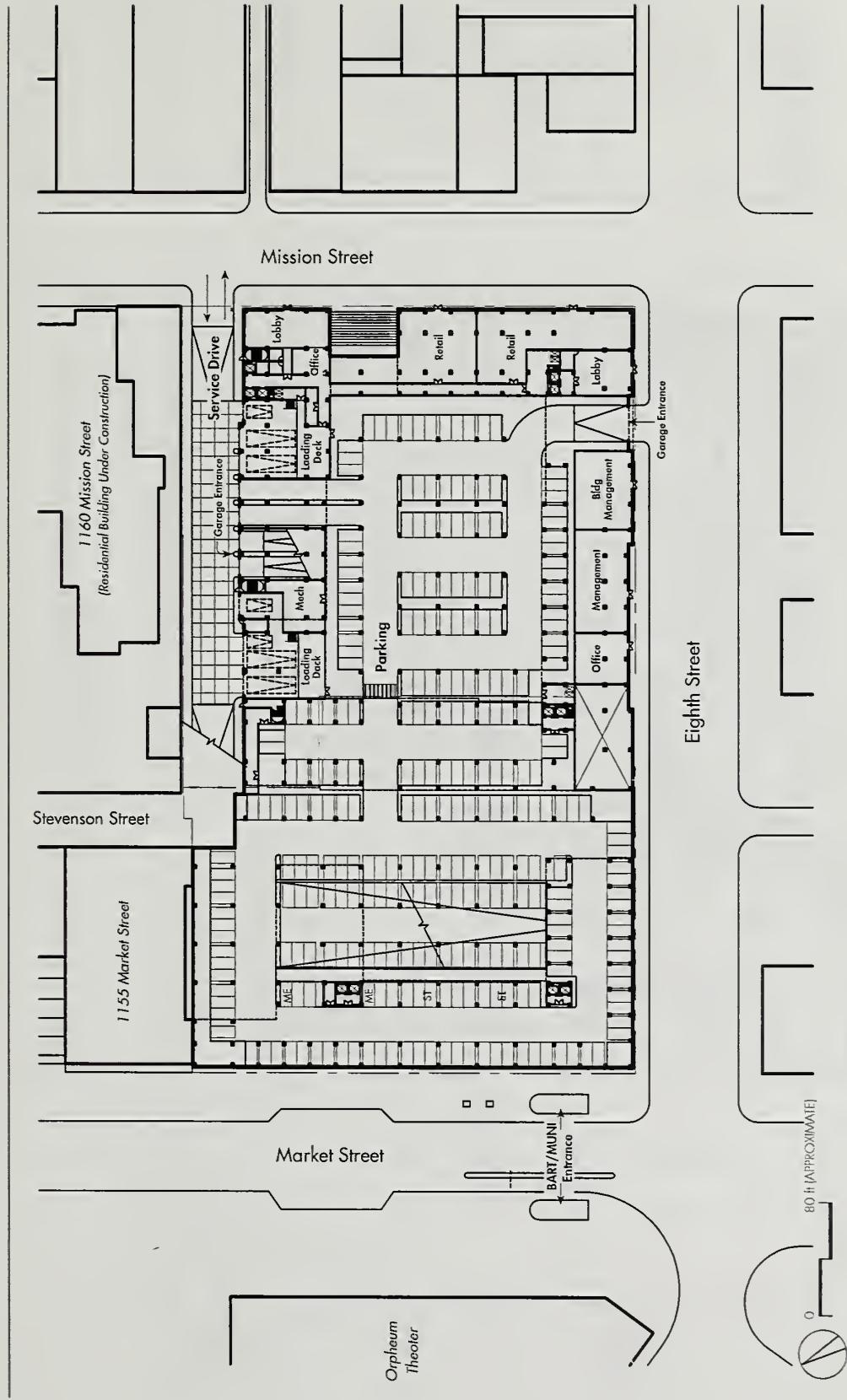


FIGURE 3: PARKING LEVEL FLOOR PLAN (AT MISSION STREET GRADE)

Source: Architeconica, Clement Design

1177 Market Street Project

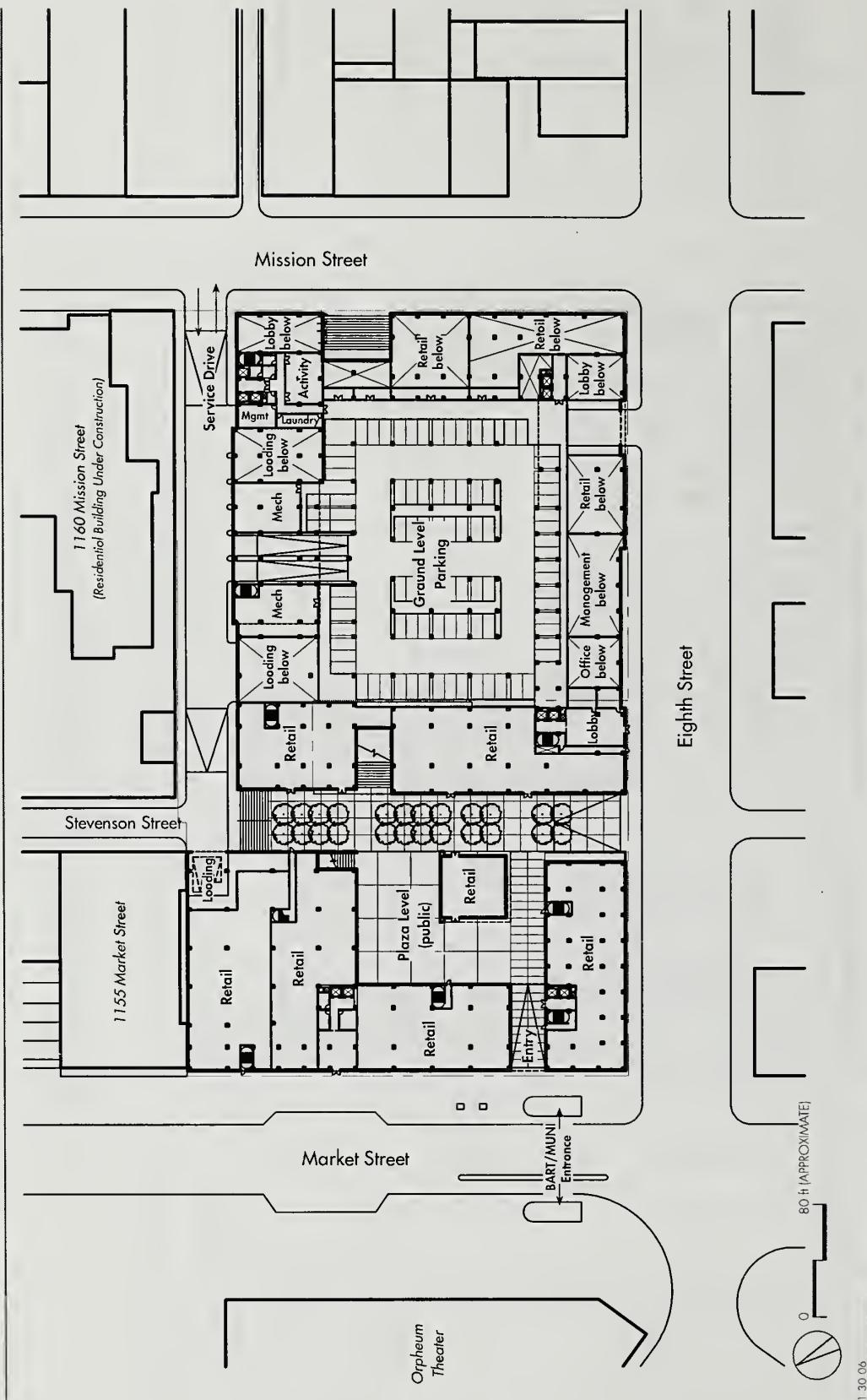


FIGURE 4: GROUND FLOOR PLAN (AT MARKET STREET GRADE)

1177 Market Street Project

Source: Arquitectonica, Clement Designs
130 06

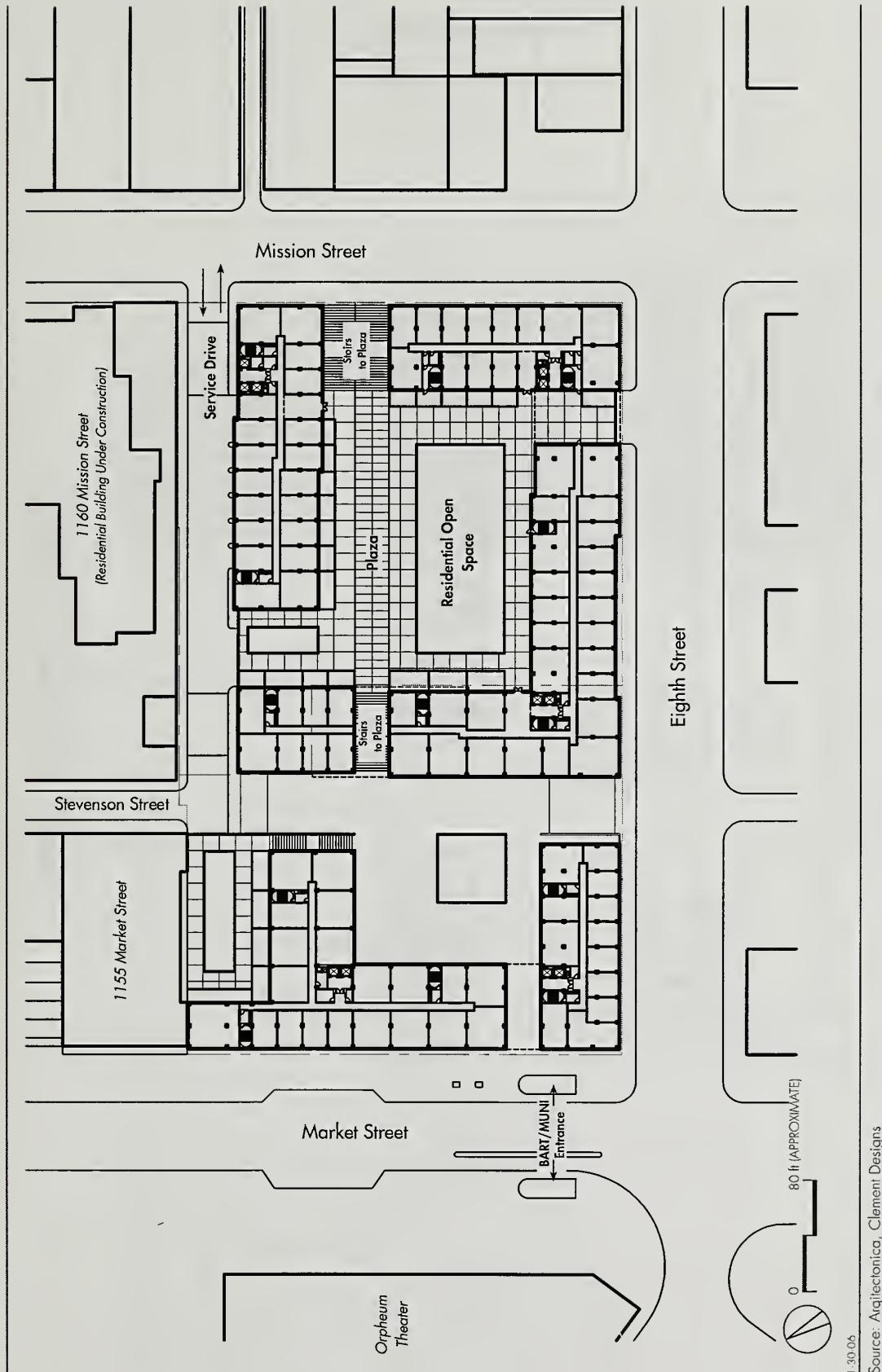
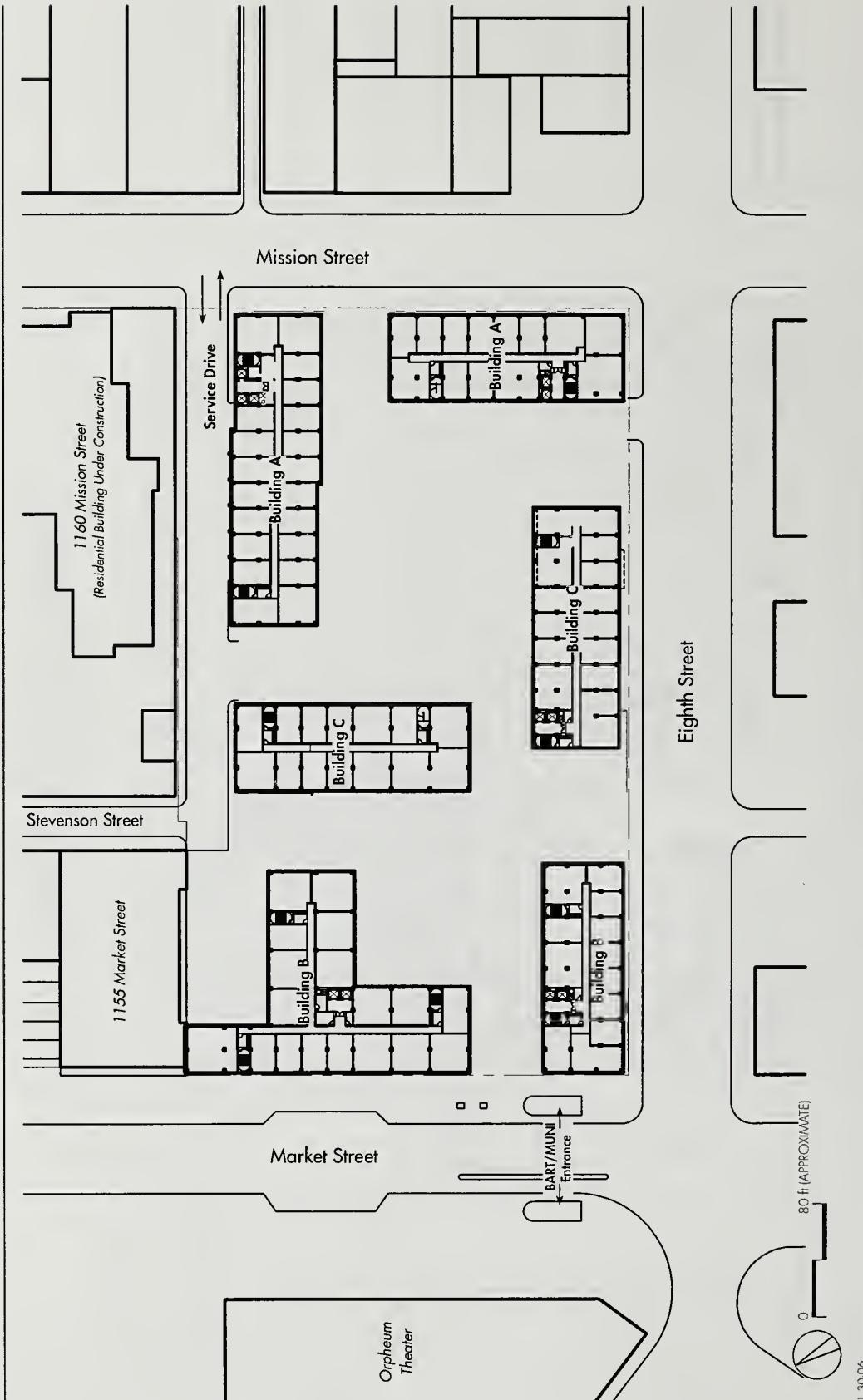


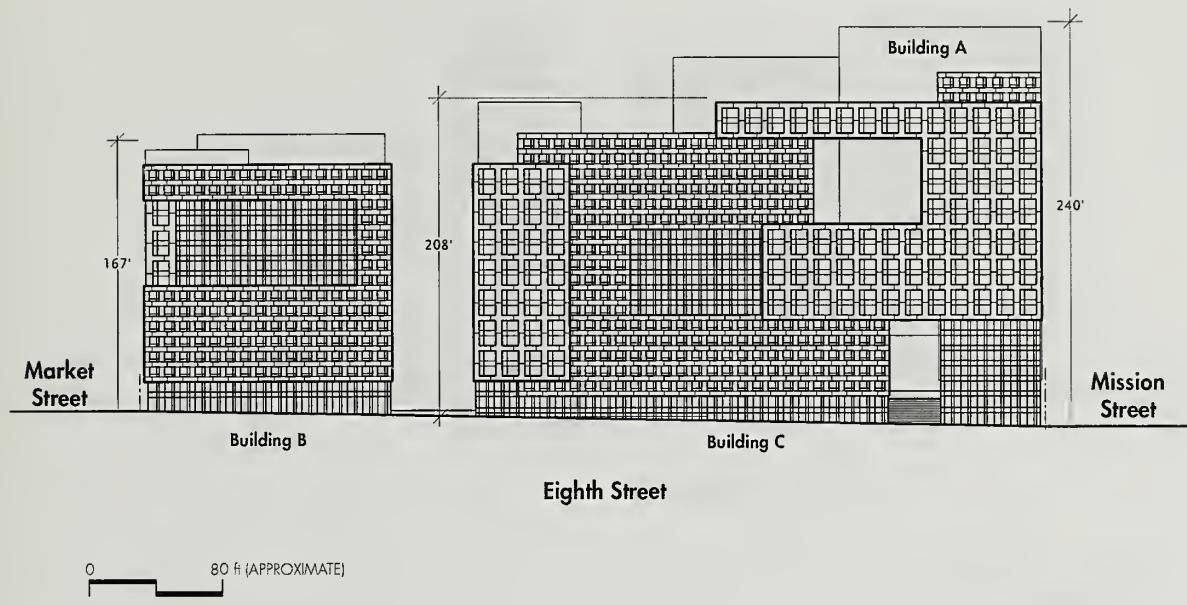
FIGURE 5: PLAZA LEVEL FLOOR PLAN



1177 Market Street Project

FIGURE 6: HIGH-RISE FLOOR PLAN

Source: Arquitectonica, Clement Designs
13006

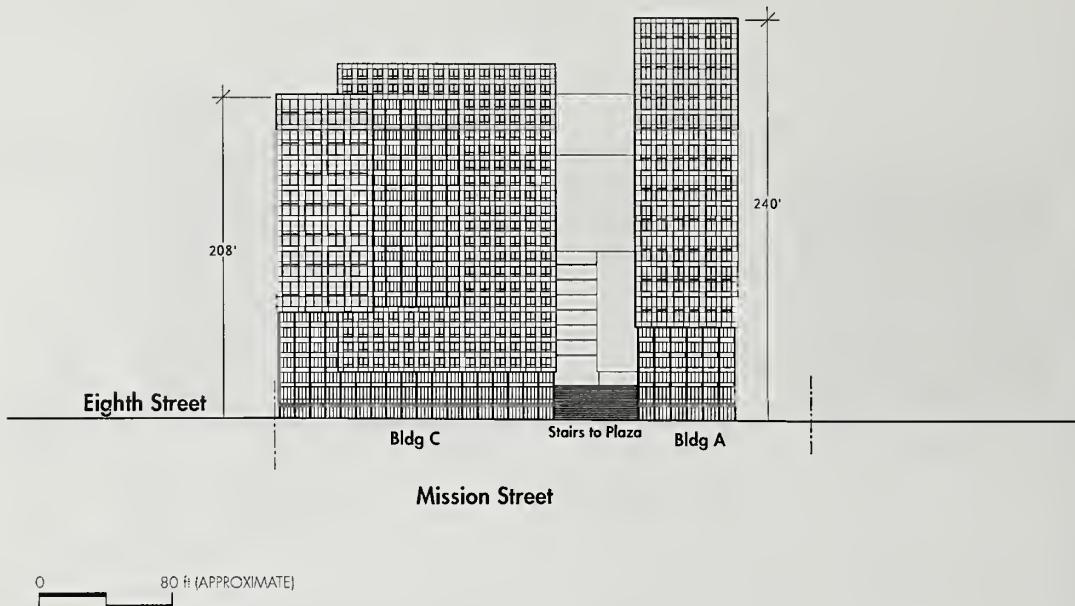


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Source: Arqitectonica

1177 Market Street Project

FIGURE 7: EIGHTH STREET ELEVATION

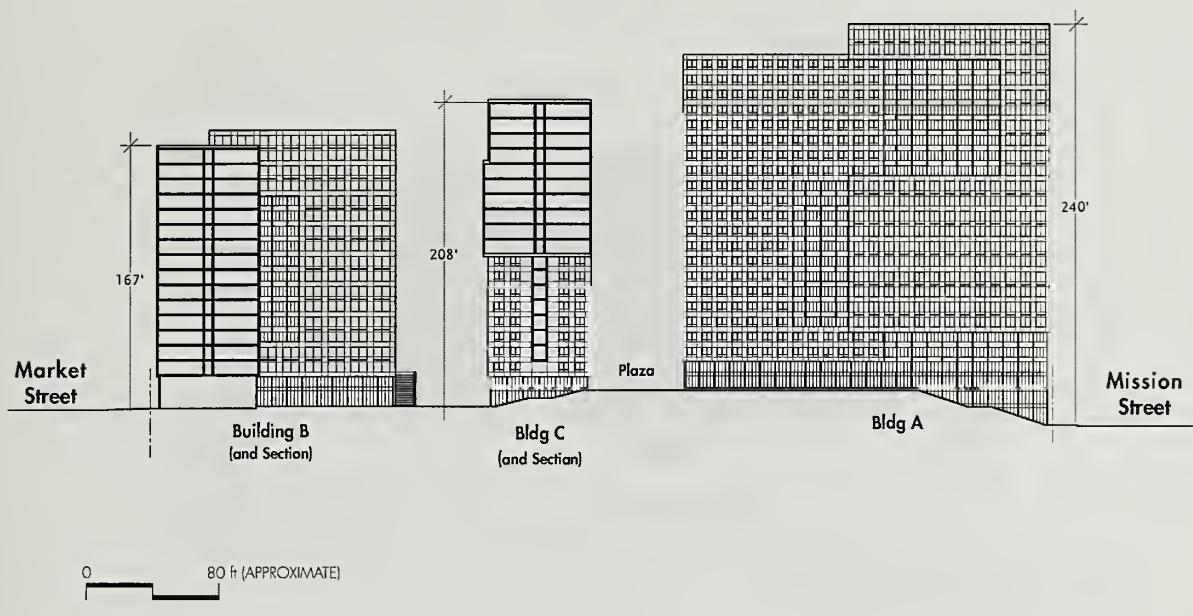


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Source: Arquitectonica

1177 Market Street Project

FIGURE 8: MISSION STREET ELEVATION

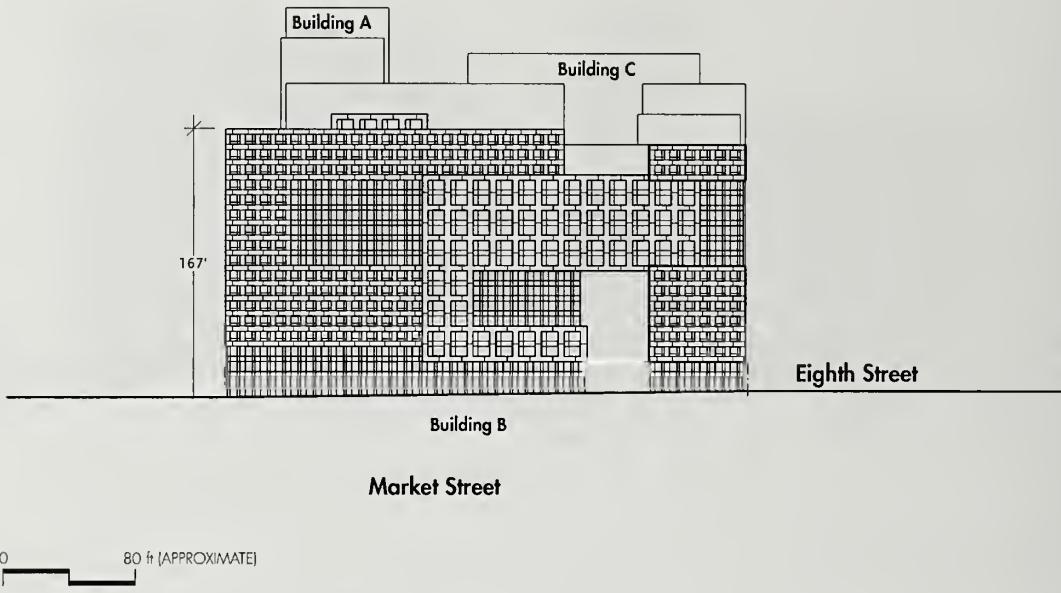


2-1-06

Source: Arqitectonica

1177 Market Street Project

FIGURE 9: WEST ELEVATION OF BUILDING A FROM COURTYARD



2-1-06

Source: Arqitectonica

1177 Market Street Project

FIGURE 10: MARKET STREET ELEVATION

TABLE 1
PROJECT CHARACTERISTICS

Category	Project Totals
Residential	1,411,000 gsf
Retail	60,000 gsf
Parking & Loading	472,000 gsf
Total	1,943,000 gsf
Dwelling Units	
Studios	1,100
One-Bedroom + Den	800
Total	1,900
Parking Spaces	1,450
Loading Spaces	5 (including service vehicle spaces)
Number of Buildings	3
Height of Buildings	167 – 240 ft. (highest point)
Number of Stories	18 – 26

Source: Arquitectonica, June 2005.

STREET AND PLAZA LEVELS AND PARKING

The project site slopes down about ten feet moving to the south from Market Street to Mission Street. Parking Level P-1, proposed to be at grade with Mission Street, would include approximately 300 parking spaces, the lower lobbies for Buildings A and C, the leasing and management offices, and the retail space along Mission Street (see Figure 3, p. 33). The ground floor level, at grade with Market Street, (see Figure 4, p. 34) would include the retail space on Market Street, the passageway from Market Street to the remainder of the project, and the entry court. The plaza level (see Figure 5, p. 35) would include about 42,000 sq. ft. of landscaped open space, and would also include the first residential floor.

BUILDINGS

Building A

Building A would extend approximately 223 feet along the eastern edge of the site, parallel to a new service drive connecting Stevenson Street to Mission Street. The building would include a one-story podium that would provide open space for residents. The Mission Street frontage of this building would have an Entry Lobby, and would have a maximum height on Mission Street of approximately 240 feet for 26 stories (including mechanical space). (See Figure 8, p. 38).

Building B

Building B would extend approximately 317 feet along Market Street, from the eastern edge of the site to the corner of Eighth Street (see Figures 7 and 10, pp. 37 and 40, respectively). This building would contain most of the retail space for the project: approximately 42,000 sq. ft. The retail spaces would front Market Street to promote street-level activity, and there would also be a retail courtyard that the public could access through an architectural “breezeway” from Market Street (see Figure 4, p. 34). The breezeway would connect to another public walkway beginning at Stevenson Street and continuing to Eighth Street. This building would have a stepped roof with a maximum height of approximately 167 feet, and a maximum of 18 stories.

Building C

Building C would be configured in a “C”-shape that would wrap around from the eastern edge of the site at Stevenson Street towards Eighth Street, continue south to Mission Street, and extend east towards the service drive (see Figure 2, p. 32). As with Building B, Building C would have a one-story podium, which would provide approximately 42,000 sq. ft. of common usable open space for the residents of the project. Access to this upper plaza would be provided by stairways from Stevenson Street on the east and from Mission Street on the south (see Figure 4, p. 34). Building C would also contain the leasing office, building

management office, and building entrance lobbies along Eighth Street. This building would have a stepped roof with a maximum height of approximately 208 ft., and a maximum of 23 stories.

PROJECT USES

Residential

Table 2 identifies proposed residential uses by building. Figure 6, p. 36, illustrates a high-rise level floor plan and Figures 7 to 10, pp. 37 to 40, illustrate proposed elevations for Market, Eighth, and Mission Streets. Residential areas would include lobbies, leasing and management offices, laundry, and community rooms (including fitness facilities) for residents, located primarily on the ground floor and first basement levels.

Usable open space would total approximately 63,000 sq. ft. Of this square footage, approximately 21,000 sq. ft. of usable open space in the entry court accessible from Market Street and Stevenson Street, within the area formed by Building A and Building C (see Figure 5, p. 35), would be open to the public. About 42,000 sq. ft. would be for the exclusive use of residents.

Retail

The project would have up to 60,000 gsf of retail space at street level, mainly along the Market and Mission Streets frontages, within the public open space between Building B and Building C, and along a portion of the Eighth Street frontage (see Figure 4, p. 34).

Parking and Loading

The project would include 1,200 off-street parking spaces for accessory use by residents, and 250 spaces for public use, in a five-level parking garage, including three levels below grade. The upper level of parking would be at Market Street grade, the P-1 parking level would be at Mission Street grade (see Figures 3 and 4, pp. 33 and 34). The three lower parking levels, B-2, B-3, and B-4, would be below street grade.

TABLE 2
BUILDING HEIGHT, SIZE, AND DWELLING UNITS
BY CONSTRUCTION PHASE

Name	Residential Units	Approximate Area (sq. ft.) ¹	Number of Stories	Approximate Height
Phase 1 Building A	440 units ▪ 440 studios ▪ 0 one-bedroom units	318,000 sq. ft.	26 max.	240 ft. to roof plus 3'-6" architectural projection (parapet)
Phase 2 Building B	545 units ▪ 240 studios ▪ 305 one-bedroom units + den	431,000 sq. ft.	18 max.	167' max. height of stepped roof plus 3'-6" parapet
Phase 3 Building C	915 units ▪ 415 studios ▪ 500 one-bedroom units + den	732,000 sq. ft.	23 max.	208' max. height of stepped roof plus 3'-6" parapet

Source: Arquitectonica, June 2005.

Note: Residential floor area is space in dwelling units only and does not include lobby, other circulation space, and mechanical space counted as gross floor area in the *Planning Code*. Total residential floor area under the *Planning Code* is 1,411,000 gsf, as listed in Table 1. Height as measured under *Planning Code* Section 260.

The parking facilities would have separate areas for resident parking (1,200 spaces) and public parking (250 spaces). Of the total 1,450 parking spaces, 67 would be designed for handicapped persons, as required by Section 155 of the *Planning Code*. The project would also provide approximately 20 motorcycle parking spaces and two bicycle storage rooms (accommodating up to 50 bicycles) on the first two parking levels, both accessible at street level. In addition, the project would provide four parking spaces for vehicles in a car-share program.

Freight and service loading areas would be accessed from Stevenson Street, or from Mission Street via the service driveway (see Figure 4, p. 34). Stevenson Street is a mid-block service street that terminates at the project site, accessible from Seventh Street. The two-way driveway along the east side of the site would serve the loading/service court and the parking garage. For security purposes, the service driveway would be accessible only to those using the driveway for loading activities or for parking garage access. The project would provide five off-street loading spaces. Four of the loading spaces would be accessed from the loading

court near Stevenson Street; one loading space would be located in Parking Level P-1 accessed from the service drive (see Figure 3, p. 33). The loading spaces would meet *Planning Code* Section 152.1 and 153.0 requirements regarding dimensions.

DESIGN ELEMENTS

The buildings would be a series of rectangular forms. Each building would have a different composition intended to create a neighborhood of buildings, with some elements arising from street levels, others with openings above street level, and other volumes with overlapping forms (see Figure 16, p. 68).

The project would include a canopy at the corner of Eighth and Mission Streets, which would extend 55 feet along Eighth Street and 27 feet along Mission Street. At each end, a 1-foot, 8-inch fin wall would run from the ground up to the canopy. The canopy would extend three feet from the building at a height of 20 feet above the ground.

LANDSCAPING

The project would include approximately 63,000 sq. ft., or about 1.4 acres, of usable open space. Approximately 21,000 sq. ft. of usable open space, located in the entry courtyard, would be open to the public. The proposed project would include street trees along all project frontages per *Planning Code* requirements. Landscaping along the Eighth Street façade would partially screen the leasing and management offices along that frontage.

D. PROJECT SCHEDULE

After demolition and excavation, project construction is anticipated to begin in 2006 and would occur in phases. Excavation is proposed to a maximum depth of about 35 feet, and approximately 165,000 cubic yards of soil would be removed from the site. The construction period for each phase would take approximately 24 months. Phase 1 would include Building A (440 units), the leasing offices, and the entry and service/loading courts, with that portion of the parking garage below. There would be about 225 surface parking spaces and

open space on the undeveloped southern portion of the site. The schedule for the remaining phases are to be determined.

E. PROJECT APPROVAL REQUIREMENTS

DEVELOPMENT AGREEMENT

The project would be specifically authorized through a Development Agreement entered into between the project sponsor and the San Francisco Board of Supervisors, under Chapter 56 of the Administrative Code. Pursuant to the Development Agreement, and consistent with the land uses, heights, and densities vested through that agreement, the project must obtain approvals under the *Planning Code*. Although the project site lies within the proposed Mid-Market Redevelopment Project Area, the Development Agreement would provide that the project is not subject to the land use controls of that Project Area, nor to the proposed Mid-Market Special Use District.

PLANNING CODE

The *Planning Code*, which incorporates by reference the City's zoning maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless either a proposed project conforms to the *Planning Code* or an exception is granted pursuant to provisions of the *Planning Code*.

The project would require conditional use authorization to demolish the existing building pursuant to Section 212(e) of the *Planning Code*, which requires authorization for the demolition of residential units in the C-3 (Downtown) zoning districts. Specific criteria are set forth in that section for approval or disapproval of demolition in lieu of criteria normally applicable for conditional use authorization. Such criteria do not generally concern the physical environmental effects of the project or of the demolition, but rather the social and economic effects of loss of housing stock.

The project would require:

1. Approval by the City of a Development Agreement under *Administrative Code Chapter 37* as noted above;
2. An amendment to Map 5 of the Downtown Element of the General Plan;
3. An amendment to the text of the *Planning Code* to create a Trinity Plaza Special Use District, where FAR and density limitations would not apply to residential uses. The proposed project would exceed the current 6:1 FAR limit in the C-3-G District;
4. Zoning map amendment to change the height and bulk classifications affecting the project site from 120-X, 150-X, and 240-S to 160-X, 180-X, and 240-S;
5. Conditional Use authorization by the Planning Commission under *Planning Code 303* to demolish the existing building and for parking in excess of that permitted as accessory parking, pursuant to Sections 303 and 157 of the *Planning Code*; and
6. Downtown Area Plan review by the Planning Commission under *Planning Code Section 309*, including exceptions under the following provisions of the *Planning Code*:
 - Section 132.1(b), Market Street setback, because the proposed structure would not incorporate a 25-foot setback from the Market Street property line above a height of 90 feet;
 - Section 134(d), rear yard requirements, because the project would not have conventional rear yards;
 - Section 135, residential open space, because the project would have less common usable open space (63,000 sq. ft.) than is normally required for 1,900 dwelling units;
 - Section 140, dwelling-unit window exposure, because some of the 1,900 dwelling units would lack standard exposure;
 - Section 146, sunlight access to Market Street, because the shadow created by the project that is not already cast by other buildings is of limited extent or duration and there is limited public use of this newly shadowed space;
 - Section 148, reduction of ambient wind speeds, because the project would not eliminate all of the existing pedestrian comfort exceedances;
 - Section 161(i), freight loading, because the project would include five freight loading spaces instead of seven required spaces; and
 - Section 272, bulk exceptions, because the project would exceed in certain instances the limitations on length and diagonal dimensions above 160 feet.

The project would be subject to *Planning Code Section 295*, which limits new shadow in public open spaces under the jurisdiction of the Recreation and Park Commission;

Section 146, which protects sunlight on certain public sidewalks in C-3 zoning districts; and Section 147, which limits new shadow on publicly-accessible open spaces not protected by Section 295. The project's compliance with Sections 146 and 147 would be determined as part of the project's review under *Planning Code* Section 309.

PROPOSITION M

On November 4, 1986, the voters of San Francisco passed Proposition M, the *Accountable Planning Initiative*, which added Section 101.1 to the *Planning Code* and established eight Priority Policies. These policies are: preservation and enhancement of neighborhood-serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service sectors from commercial office development and enhancement of resident employment and business ownership; maximization of earthquake preparedness; landmark and historic building preservation; and protection of open space. Prior to approving the project, the City is required to find that the proposed project is consistent with the Priority Policies. The motion for the Section 309 consideration will contain the analysis determining whether the proposed project is in conformance with the Priority Policies.

GENERAL PLAN

The *San Francisco General Plan (General Plan)*, which provides general policies and objectives, contains some policies that relate to physical environmental issues. In general, potential conflicts with the *General Plan* are considered by the decision-maker (normally the Planning Commission) independently of the environmental review process as part of the decision to approve, modify, or disapprove a proposed project. Any potential conflict not identified here may be considered in the context of applicable objectives and policies of the *General Plan* and would not alter the physical environmental effects of the proposed project. The Planning Commission must review the project in this context. Some of the key objectives and policies of the *General Plan* are discussed in Section III, Land Use, Plans, and Zoning.

III. ENVIRONMENTAL SETTING AND IMPACTS

On the basis of an Initial Study published on July 5, 2003, the San Francisco Planning Department determined that an EIR was required for the proposed project. The Initial Study determined that certain effects of the proposed project would either be insignificant or would be reduced to a less-than-significant level by mitigation measures included in the project. These include mitigation for population; utilities and public services; biology; geology and topography; water; energy and natural resources; noise; hazards; and cultural resources (historic and archaeological resources). Therefore, the EIR does not discuss most of these effects (see Appendix A, p. A-1, for the Initial Study). The Initial Study also found that land use changes would not be significant, but noted that the topic would be discussed in the EIR for informational purposes (Section III.A). Population and housing changes anticipated from the proposed project are discussed in the EIR (Section III.G).

A. LAND USE, PLANS, AND ZONING

EXISTING LAND USE

As shown in Figure 1, p. 30, the project site is bounded by Market Street, Eighth Street, and Mission Street, one block southeast of the San Francisco Civic Center. (While Market Street and Mission Street have a northeast-southwest alignment, locations are referred to as north or south of Market Street, or east and west of Eighth Street or parallel streets, by convention.)

The proposed project site is 177,295 sq. ft., or about four acres in area. Existing land uses on-site consist of the 377-unit Trinity Plaza Apartments, which includes office space, building management, and leasing office space, and approximately 12,500 gsf of restaurant space. There are 355 studio apartments and 22 one-bedroom units. The four- to seven-story building was originally constructed as the Del Webb Towne House Motel and was converted in the late 1970s to its current use as rental apartments.

As part of the original motel, the site contains approximately 450 spaces of surface and below-grade parking. More than 250 spaces are regularly available to the general public for short-

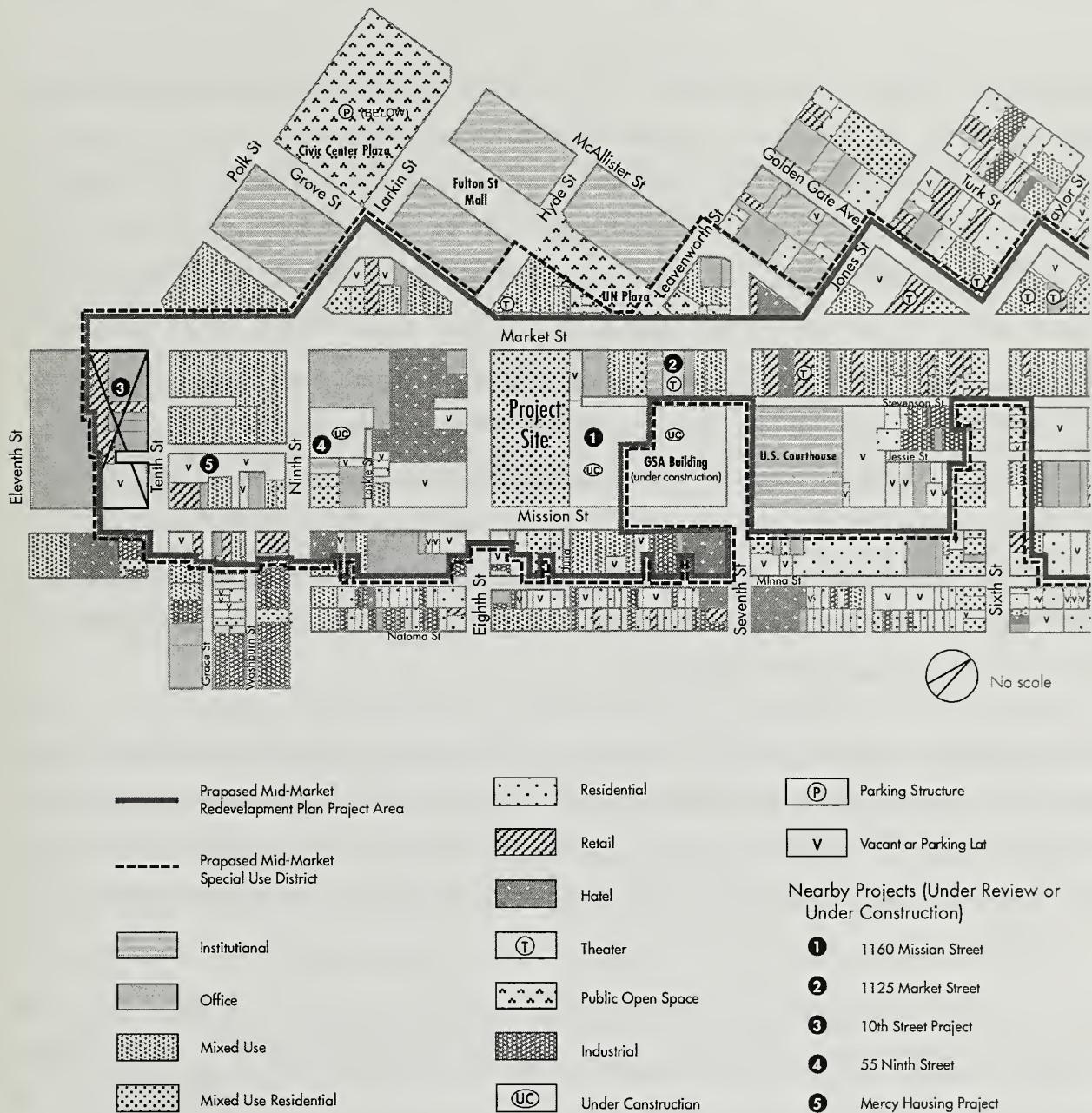
term parking, and are used both during the day to serve the on-site restaurant and nearby facilities, and at night by patrons of the Orpheum Theater and other entertainment and cultural facilities nearby. Of the other 200 spaces, about 50 are leased on a monthly basis to residents, some to the on-site restaurant, some to City agencies and their employees, and several spaces are used by the Trinity Properties.

The population and housing characteristics of existing and proposed uses are discussed further in Section III.G, Population and Housing.

Land uses in the vicinity of the project site include residential, retail, hotel, office, cultural, and institutional uses, and parking. Most of the existing buildings in the area have ground-floor retail space and are built out to the property lines. Existing office, hotel, and residential uses with ground-floor retail uses predominate on Market Street, Mission Street, and Eighth Street in the project vicinity (see Figure 11).

Office buildings at 1145 and 1155 Market Street, directly east of the project site, are 14 and 12 stories in height, respectively. A proposed 12-story hotel is currently under review for 1125 Market Street. Directly east of the project site is the under-construction 1160 Mission Street project, a 23-story residential building with about 250 units and off-street parking for approximately 504 vehicles. Further east from this parcel is the under-construction General Services Administration (GSA) Building, also referred to as the Federal Building, an 18-story office building with ground-floor retail, but no parking (see Figure 11).

The Civic Center, the location of major municipal, state, and federal offices, is north of Market Street near the site. Around the Civic Center Plaza bounded by Polk Street, Grove Street, Larkin Street, and McAllister Street are City Hall, the Bill Graham Civic Auditorium, the Main Library, the Asian Art Museum, the California State Building, and the Civic Center Courts Building. A vacant federal building is at Fulton Street and Larkin Street. West of the Civic Center, across Van Ness Avenue, is the San Francisco War Memorial and Performing Arts Center, consisting of Davies Symphony Hall, the War Memorial Opera House, and the War Memorial Veterans Memorial Building.



13006

Source: City and County of San Francisco data; EIP Associates

1177 Market Street Project

FIGURE 11: EXISTING LAND USE IN THE PROJECT VICINITY

Buildings to the north of the project site on Market Street include the six-story San Francisco Main Library on the Larkin-Grove-Hyde-Fulton block near Market Street, the Orpheum Theater on Market Street near Hyde Street, and an office building east of the theater occupied, in part, by an art school. The Civic Center BART/MUNI station is located adjacent to the project site under Market Street, with entrances near the intersection of Market Street and Eighth Street. To the west of the project site, opposite Eighth Street, is the two-story Washington Mutual Bank, the 12-story Holiday Inn at 50 Eighth Street, and a five-story PG&E substation at the northwest corner of Mission Street and Eighth Street. The Ramada Plaza Hotel at 1231 Market Street is on the south side of Market Street, west of Eighth Street. Fox Plaza at 1390 Market Street, two blocks west of the project site on the north side of Market Street at Larkin Street, is a 20-story mixed-use office, retail, and residential building. Smaller-scale two- and three-story commercial and light industrial buildings are located along Mission Street and south of the project site.

Other proposed or approved projects in the vicinity of the project, but located outside of the project block, include Mercy Senior Housing and Family Housing, both affordable projects; 55 Ninth Street, 77 Van Ness Avenue, 1 Polk Street, the SF Mart addition, and the Tenth/Market/Mission Streets Mixed-Use Project. Most of these projects would be mixed-use or residential.

Public open space is located north of the project site: Civic Center Plaza, a major open space for public assembly and recreational purposes (under the jurisdiction of the Recreation and Park Department); United Nations Plaza, a public open space connecting Civic Center to Market Street; and Fulton Street Mall (under the jurisdiction of the Department of Public Works) (see Figure 11, p. 51).

PLANNING CODE USE DISTRICTS

The proposed project site is within the C-3-G (Downtown General Commercial) District (see Figure 12). The C-3-G District serves as a city-wide and regional center for a variety of uses, including: retail, office, hotel, entertainment, institutional, and high-density residential. Section 210.3 of the *Planning Code* describes the district as follows:

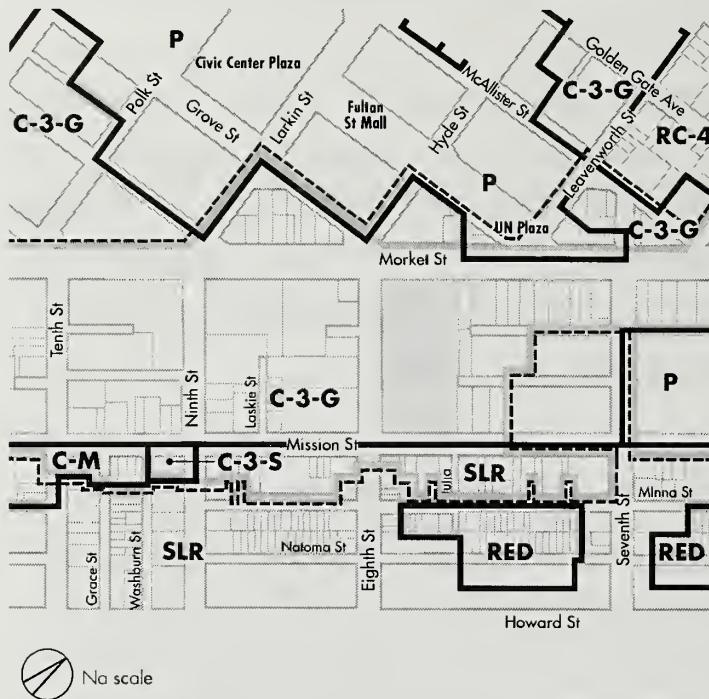
This district covers the western portions of Downtown and is composed of a variety of uses: retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the Downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. Within portions of this district, automobile parking is a major land use, serving this district and the adjacent office and retail core areas. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.

In the C-3-G District, a base floor area ratio (FAR) of 6:1 is allowed, with a maximum allowable FAR of 9:1 through the use of transferable development rights (TDR) under Section 128 of the *Planning Code*. To the extent that the FAR were to exceed 6:1, the project sponsor might obtain TDRs. TDRs are transferred from unused FAR from a site in the same zoning district containing a Significant or Contributory building under Article 11 of the *Planning Code*.¹ If the proposed project were to require TDRs to exceed the base FAR of 6:1, the project would need written certification from the Zoning Administrator that the project sponsor owned the required number of TDRs in the C-3-G District prior to the issuance of a site or building permit.

In the C-3-G District, residential uses require one parking space per four units; additional parking can be provided as an accessory use or as a conditional use if approved under *Planning Code* Sections 303 and 157.

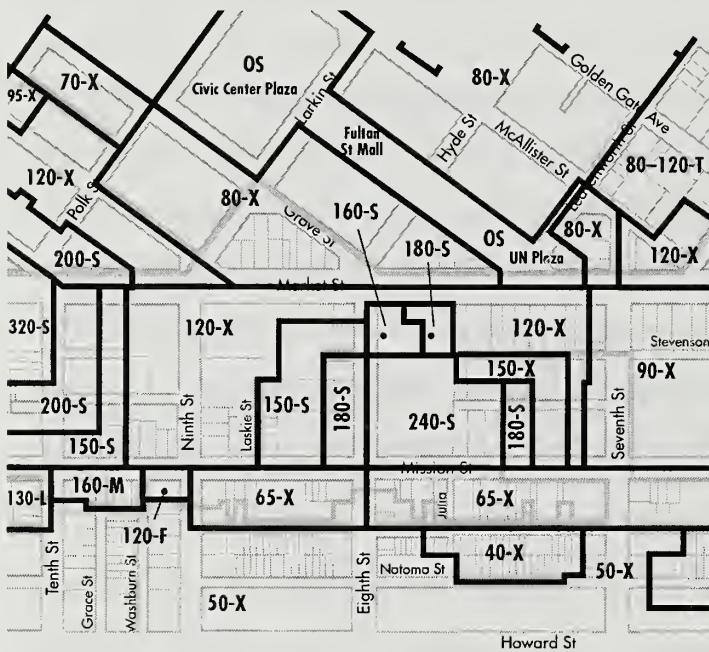
Zoning near the project site is also primarily C-3-G, with the P (Public) Use District to the north associated with the Civic Center area, and the SLR (Service/Light Industrial/Residential)

¹ A Significant or Contributory building under Article 11 is a building of historic and/or architectural merit.



Planning Code Use Districts

- Project Site
 - Proposed Mid-Market
Redevelopment Plan Project Area
 - Proposed Mid-Market Special Use District
 - Zoning Boundary
 - P Public Use Districts
 - C-M Heavy Commercial Districts
 - C-3-G Downtown General Commercial Districts
 - C-3-S Downtown Support Districts
 - RED Residential Enclave Districts
 - SLR Service/Light Industrial/Residential
Mixed Use Districts
 - RC-4 Residential-Commercial Combined Districts,
High Density



Height and Bulk Districts

- Project Site
 - Proposed Mid-Market Redevelopment Plan
 - Project Area
 - Height and Bulk Boundary
 - OS Open Space district
 - Numbers are height limits in feet
 - Letters refer to bulk limits in
City Planning Code Section 270

1-31-06

Source: San Francisco Planning Department, EIP Associates

1177 Market Street Project

FIGURE 12: PLANNING CODE USE DISTRICTS AND PLANNING CODE HEIGHT AND BULK DISTRICTS

Mixed Use District to the south associated with business services, light industry, residential, and wholesaling uses of the South of Market area.

PLANNING CODE HEIGHT AND BULK DISTRICTS

The project site is split among three height and bulk districts: a 120-X Height/Bulk District, which encompasses a portion of the site nearest Market Street; a 150-X Height/Bulk District, which contains a portion of the site somewhat farther from Market Street; and the 240-S Height/Bulk District, which encompasses more than half of the site and the majority of the project site along Mission Street and Eighth Street (see Figure 12, p. 54). The height limits in these districts are, correspondingly, 120 feet, 150 feet, and 240 feet, not including permitted exceptions to accommodate parapets, mechanical equipment, and certain architectural features up to an additional 16 feet, per *Planning Code* Section 230.

In "X" bulk districts, there are no limitations on length or diagonal dimensions for the buildings. In "S" bulk districts, there are no limitations on length or diagonal dimension applicable to the base of the building per *Planning Code* Section 270(d). The base is the lowest portion of the building extending vertically to a street wall height of up to 1.25 times the width of the widest abutting street, or 50 feet, whichever is more. Bulk controls for a lower tower, which is defined as the portion between the building base and 160 feet, are a maximum length of 160 feet, a maximum diagonal dimension of 190 feet, a maximum average floor size of 17,000 sq. ft., and a maximum floor size of 20,000 sq. ft. Maximum dimensions for the upper tower above 160 feet are a maximum length of 130 feet, a maximum diagonal dimension of 160 feet, a maximum average floor size of 12,000 sq. ft., and a maximum floor size of 17,000 sq. ft.

GENERAL PLAN

An area plan of the *San Francisco General Plan*, the *Downtown Plan* is the policy document that guides growth and development in San Francisco's downtown area. Centered on Market Street, the *Downtown Plan* covers an area roughly bounded by Van Ness Avenue to the west, The Embarcadero to the east, Folsom Street to the south, and the northern edge of the

Financial District to the north. The *Downtown Plan* contains objectives and policies that address the following issues: provision of space for commerce, housing, and open space; preservation of the past; urban form; and movement to, from, and within the downtown area (transportation). The *Downtown Plan* was intended to manage growth in this area, including maintaining a compact downtown core and directing growth to areas with developable space and easy transit access, so downtown would “encompass a compact mix of activities, historical values, and distinctive architecture and urban forms that engender a special excitement reflective of a world city.”²

PROPOSED MID-MARKET REDEVELOPMENT PLAN

The proposed project site is within the proposed Mid-Market Redevelopment Area (see Figure 1, p. 30). This area is proposed for designation as a redevelopment area by the San Francisco Redevelopment Agency (Redevelopment Agency). The *Mid-Market Redevelopment Plan Final EIR* was certified in September 2003.³ The *Redevelopment Plan* itself is currently in preparation and has not yet been adopted.

The *Mid-Market Redevelopment Plan EIR* (p. 4) identifies the objectives of the draft *Mid-Market Redevelopment Plan* as follows:

The proposed Mid-Market Plan is designed to encourage and assist in the development of a more land-use intensive mixed-use district than currently exists with a special emphasis on increasing the ratio of residential development to other land uses; expanding existing arts, cultural and entertainment activities; aiding existing businesses and attracting new commercial development; and rehabilitating existing commercial and residential space in historic buildings. In addition, the Mid-Market Plan calls for the development and rehabilitation of affordable housing units and affordable community-service office space.

To support the project area's growth in residential population, businesses, and employees, and to serve city-wide and regional needs, the Mid-Market Plan proposes additional facilities to house civic, social and cultural services and activities and public capital improvements with an emphasis on upgrading public streetscapes and transit facilities. The Mid-Market Plan also proposes creating a shared community parking

² San Francisco *Downtown Plan*, p. II.1.1

³ San Francisco Redevelopment Agency and City and County of San Francisco, *Mid-Market Redevelopment Plan Final Environmental Impact Report*, 2002.0805E, certified September 18, 2003.

system and removing minimum on-site parking requirements. A limited number of shared, short-term public parking facilities are proposed in strategic locations within the project area.

The 1177 Market Street project site is among a number of sites identified in the *Mid-Market Redevelopment Plan EIR* as potential development opportunity sites (EIR p. 14):

Development Sites include vacant sites, parking lots, and sites that would be developed after existing buildings were demolished. Development Sites might include sites where new construction would primarily occur, accompanied by retention and re-use of structures or portions of structures, deemed to be of historic or architectural merit. Rehabilitation Sites include buildings that are considered to have architectural merit or are otherwise suitable for rehabilitation and re-use without major new construction on the site. The [Mid-Market] project scenario would thus include both new development and rehabilitation/re-use of older structures.

This scenario [...] is based on the current zoning controls in the *Planning Code* and the proposed Mid-Market SUD [Special Use District] and on Mid-Market Plan goals for the future mix of uses. The scenario assumes that Development Sites or Rehabilitation Sites would use the full FAR permitted under those zoning controls (generally 6:1 in most of the Project Area). The scenario also assumes that about 35% of the Development Sites would be developed with FAR bonuses, up to 9:1, achievable under current provisions for Transfer of Development Rights from buildings of architectural merit or other bonuses proposed in the Mid-Market Plan, such as for housing. This full use of base FAR and bonuses can be considered conservative; that is, specific development projects might not achieve the total allowable FAR on a given site, because of height and bulk requirements or other design constraints. Therefore, the impact analysis in the [Mid-Market] EIR may conservatively over-estimate impacts.

The Mid-Market Plan Scenario was projected to result in about 2,800,000 sq. ft. of new housing, or about 3,200 new dwelling units (a combination of market-rate and affordable units). The *Mid-Market Redevelopment Plan EIR* analyzed overall changes in land use in the proposed Mid-Market Redevelopment Area, but did not assess detailed plans for specific development sites.

CONSISTENCY WITH ZONING AND LAND USE DISTRICTS

The proposed project would demolish the existing structures on site, including the 377 existing dwelling units. The proposed project would be a new mixed-use development, containing 1,900 dwelling units, parking facilities, open space, and retail space. The number of dwelling units on site would increase by 1,523 over existing conditions. The buildings would range

from 18 to 26 stories, with maximum building heights of 167 feet to 240 feet in height, an increase of 14 to 19 stories, or about 90 to 190 feet in height. The total gross floor area would be approximately 1,943,000 sq. ft., including about 60,000 sq. ft. of ground floor retail/personal services/restaurant space and 1,450 parking spaces.

The proposed project's residential and retail uses would be permitted under the C-3-G (Downtown-General Commercial) zoning of the project site. As noted on Section II, Project Description, the project would require: (1) approval by the City of a Development Agreement under *Administrative Code Chapter 37*; (2) an amendment to Map 5 of the Downtown Element of the General Plan; (3) an amendment to the text of the *Planning Code* to create a Trinity Plaza Special Use District, where FAR and density limitations would not apply to residential uses and the proposed project would exceed the current 6:1 FAR limit in the C-3-G District; (4) zoning map amendment to change the height and bulk classifications affecting the project site from 120-X, 150-X, and 240-S to 160-X, 180-X, and 240-S; (5) conditional use authorization by the Planning Commission under *Planning Code* 303 to demolish the existing building and for parking in excess of that permitted as accessory parking, pursuant to Sections 303 and 157 of the *Planning Code*; and (6) Downtown Area Plan review by the Planning Commission under *Planning Code* Section 309, including exceptions under the following sections of the *Planning Code*:

- Section 132.1(b), Market Street setback, because the proposed structure would not incorporate a 25-foot setback from the Market Street property line above a height of 90 feet;
- Section 134(d), rear yard requirements, because the project would not have conventional rear yards;
- Section 135, residential open space, because the project would have less common usable open space (63,000 sq. ft.) than is normally required for 1,900 dwelling units;
- Section 140, dwelling-unit window exposure, because some of the 1,900 dwelling units would lack standard exposure;
- Section 146, sunlight access to Market Street, because the shadow created by the proposed project that is not already cast by other buildings is of limited extent or duration and there is limited public use of this newly shadowed space;
- Section 148, reduction of ambient wind speeds, because the project would not eliminate all of the existing pedestrian comfort and hazard criteria exceedances;

- Section 161(i), freight loading, because the project would include five freight loading spaces, instead of seven required spaces; and
- Section 272, bulk exceptions, because the project would exceed in certain instances the limitations on length and diagonal dimensions above 160 feet.

As noted in the Initial Study, Appendix A, p. A.16, the proposed project would result in an increase in intensity of existing land uses on the site. The proposed project would redevelop the site with a greater residential density than currently exists on the site, but would not disrupt or divide the physical arrangement of an established community. While residential densities would be greater than currently exist on the project site and those of residential uses in the immediate vicinity, high-density residential use is common in San Francisco and is permitted on this site. The project would intensify the current activities on the site, and would be generally consistent with the planned uses and goals of the General Plan, including the *Downtown Area Plan*, the proposed *Mid-Market Redevelopment Plan*, the C-3-G Zoning District, and the proposed Trinity Plaza Special Use District.

The Mid-Market area has been undergoing transition, and the proposed project and other recent major developments on the project block are part of a trend to increase the amount of high-density residential and commercial uses, as described above. While the project would increase densities on the project site and in the immediate vicinity compared to the existing condition, the project would be generally compatible with planned or under-construction uses on the project block. As noted in the Initial Study, the project would not have a substantial adverse impact upon the existing character of the vicinity.

As noted on pp. 14-16 of the *Mid-Market Redevelopment Plan Final EIR*, development scenarios for implementation of the proposed *Redevelopment Plan* included a range of uses in the proposed Mid-Market Redevelopment Area, including high-density residential uses and public parking. The draft *Redevelopment Plan* would propose that its land use goals be primarily implemented through existing *Planning Code* controls in the Mid-Market Redevelopment Area, and a proposed Mid-Market Special Use District, which would be expected to provide for more specific regulations with respect to residential and entertainment uses and parking requirements; similar to the more specific regulations adopted in other

special use districts, such as the Van Ness Special Use District, where more intensive residential development is sought. Under the proposed Development Agreement, the proposed project would be excluded from the proposed Mid-Market Special Use District, but it would respond to the high-density residential land use goals that are part of the *Mid-Market Redevelopment Plan*.

The San Francisco General Plan, which provides general policies and objectives to guide land use decisions, contains some policies that relate to physical environmental issues. The compatibility of the project with General Plan policies that do not relate to physical environmental issues will be considered by decisionmakers as part of their decision whether to approve or disapprove the proposed project and any potential conflicts identified as part of that process would not alter the physical environmental effects of the proposed project.

B. VISUAL QUALITY

SETTING

The project area is urbanized, with a mixture of building types of varying ages and architectural styles, as well as vacant or underutilized parcels, on- and off-street parking, and major arterial streets. The architectural character in the area varies from early twentieth-century brick or masonry storefronts along the south side of Mission Street opposite the project site, to mid-1960s apartments, such as Fox Plaza, the 1950s structure at the project site, now Trinity Plaza Apartments, and contemporary mid-rise office buildings dating from the 1970s, 1980s, and 1990s. North of Market Street in the Civic Center are Beaux-Arts-style public buildings from the early 20th century, such as City Hall, the Bill Graham Civic Auditorium, and the Asian Art Museum (former Main Library). The New Main Library, the State Building on Golden Gate Avenue, and the Civic Center Courthouse are more recent contemporary designs.

PROJECT SITE AND VICINITY

The project site is currently occupied by the four- to seven-story Trinity Plaza Apartments. This building is an unadorned, concrete-faced structure built as a motel in the late 1950s. The apartment building is set back from Market Street and Eighth Street and is surrounded by surface parking. There is limited landscaping or usable open space within the site. An open space of about 2,500 sq. ft. is designated for public use pursuant to conditions established for the office building at 1145 Market Street.

The project site is located on the western end of the block bounded by Market Street to the north, Eighth Street to the west, Mission Street to the south, and Seventh Street to the east (see Figure 1, p. 30). The Market Street corridor has 25- to 31-foot-wide brick sidewalks, street trees and occasional seating. Stevenson Street, a minor street, runs through the project block from Seventh Street up to the project site (see Figure 2, p. 32).

The project block contains existing buildings and several development sites. On Market Street between Seventh and Eighth Streets, older buildings give way to the west to newer office buildings at 1145 Market Street, which is 14 stories tall, and 1155 Market Street, which is 12 stories tall. These structures have contemporary styles and are the largest buildings that front Market Street within the project block. Structures on the block fronting Market Street to the east include two- to six-story structures. These buildings form a continuous street façade, primarily of post-Earthquake architectural styles. A 12-story hotel is proposed on this block at 1125 Market Street.

On the eastern portion of the project block at Mission Street and Seventh Street is the under-construction GSA Building, which is 18 stories tall, or approximately 240 feet in height. The shell of the GSA Building is complete as of early 2006. The remainder of the block that fronts Mission Street is mostly occupied by surface parking areas. Directly east of the project site along Mission Street is the under-construction 1160 Mission Street building, a 23-story residential building with 250 units and approximately 500 parking spaces.

Other projects have been approved or are currently under review in the vicinity of the project site, but not within the project block or adjacent to the project site, including Mercy Housing, 55 Ninth Street, 77 Van Ness Avenue, 1 Polk Street, the SF Mart addition, and the Tenth/Market/Mission Streets Mixed-Use Project.

Building heights in the project vicinity range from 2- to 18-story residential and commercial structures. Smaller-scale two- and three-story commercial and light industrial buildings are located along Mission Street to the south of the project site. Public open space in the project vicinity includes Civic Center Plaza, United Nations Plaza, and Fulton Street Mall. Civic Center Plaza is about two blocks northwest of the project site. The Fulton Street Mall, which extends along Fulton Street between Larkin Street to Hyde Street, and United Nations Plaza which extends from Hyde Street to Market Street are about one to two blocks northwest from the project site (see Figure 11, p. 51).

Along Market Street, variations in the street wall between Seventh Street and Eighth Street include the Orpheum Theater and United Nations Plaza, which is at the foot of Fulton Street

and north of the project site. Views from United Nations Plaza include Civic Center Plaza, City Hall, and other public buildings, generally of the Beaux-Arts/Classical Revival style to the west, and views of the south side of Market Street and the project site. Building heights and styles vary on Market Street immediately west of Eighth Street, with the two-story Washington Mutual Bank building with glass facades fronted by columns on the corner of Eighth Street and Market Street.

Across Eighth Street from the project site is the 13-story Holiday Inn and the Pacific Gas and Electric Company (PG&E) Mission Street Substation. The PG&E substation, built in 1947, consists of a gray, concrete façade with limited detail but no windows.

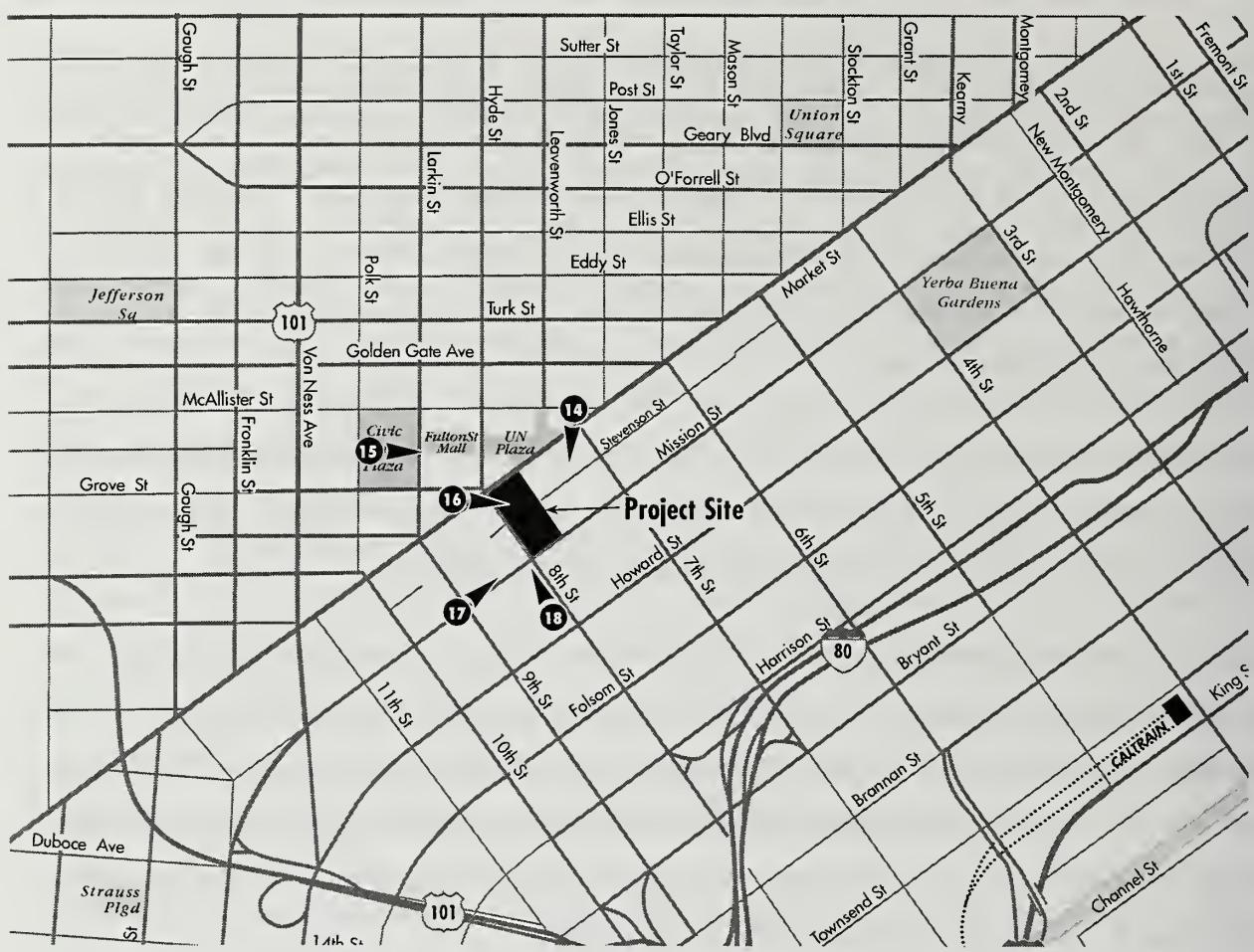
Mission Street development near the site is generally lower scale, with structures ranging from two to five stories in height. As noted above, the under-construction GSA Building will be 18-stories on Mission Street between Seventh Street and Eighth Street, and 1160 Mission Street will be a 23-story residential building. Mission Street generally contains a mix of older masonry buildings and newer structures, interspersed with parking lots. The Mission Street corridor has 15-foot-wide sidewalks and fewer street trees.

Seventh Street east of the project block is currently dominated by the U.S. Court of Appeals building, of Beaux-Arts/Classical Revival design.

VIEWS

Photographs of representative views of the project site from five locations in the project vicinity are provided in Figures 14 to 18, pp. 65 to 70. Figure 13, p. 64, shows the viewpoint locations.

As seen in Figure 14, p 65, existing views southwest from United Nations Plaza to Market Street include the south side of Market Street and the project site. In this view, the existing Trinity Plaza Apartment building is seen as a low-rise structure set back from Market Street. The 1145 and 1155 Market Street buildings are seen to the east of the project site. The Ramada Plaza Hotel is west of Eighth Street.



14 ► Symbol indicates figure number and direction of photo view

(14) No scale

1-27-06

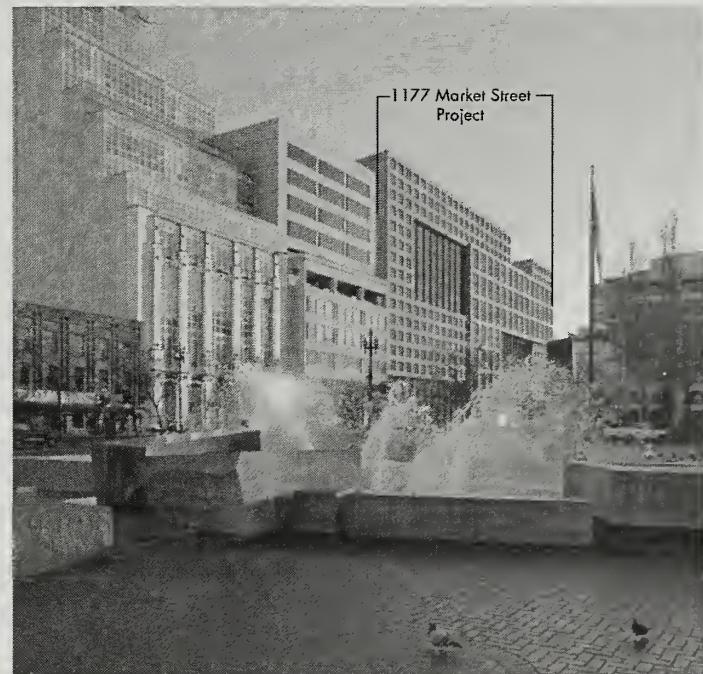
Source: EIP Associates

1177 Market Street Project

FIGURE 13: VIEWPOINT LOCATIONS



Existing View



Massing Simulation

1:30.06

Source: Squore One Productions

1177 Market Street Project

FIGURE 14: VIEW SOUTHWEST FROM UNITED NATIONS PLAZA TO MARKET STREET

Figure 15, p. 67, shows the view east from Civic Center Plaza at Polk Street at City Hall to Market Street. Views from City Hall include institutional buildings such as the Asian Art Museum and the Main Library east of Civic Center Plaza, and Bill Graham Civic Auditorium on the south side of Civic Center Plaza. The completed shell of the GSA Building at Seventh Street near Mission Street, the State Compensation Insurance Corporation building on the south side of Market Street at Ninth Street, and the 1155 Market Street building are also visible. Views of the existing Trinity Plaza Apartments from this vantage are obstructed by the Main Library.

As seen in Figure 16, p. 68, the views of the project site southeast from Market Street at Grove Street near Eighth Street includes the south side of Market Street and the project site. In this view, the existing Trinity Plaza Apartment building is seen as a low-rise structure set back from Market Street. The 1145 and 1155 Market Street buildings are seen to the east of the project site. The two-story Washington Mutual Bank building is also seen west of the project site.

As seen in Figure 17, p. 69, the view east from Mission Street near Ninth Street includes a four-story hotel building and the PG&E Substation west of the project site. The existing Trinity Plaza Apartment building is not visible from this vantage point. High-rise structures further east along Mission Street are also visible from this location.

As seen in Figure 18, p. 70, the view north from Eighth Street near Howard Street includes two- to five-story apartment buildings typical of the South of Market district. The Orpheum Theater on the north side of Market Street is visible at the Eighth Street/Market Street Intersection. The Philip Burton Federal Building on 450 Golden Gate Avenue is also visible further north. The existing Trinity Plaza Apartment building is not visible from this location due to its setback from Eighth Street.



Existing View



Massing Simulation

1.31.06

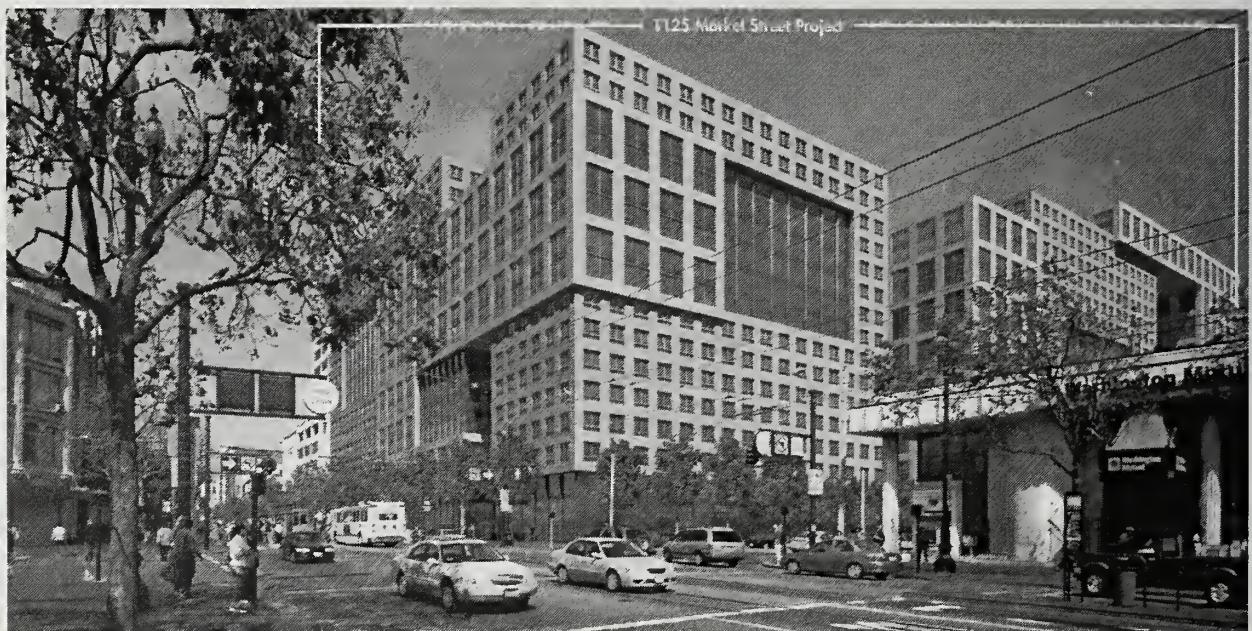
Source: Square One Productions

1177 Market Street Project

FIGURE 15: VIEW EAST FROM CIVIC CENTER PLAZA TO MARKET STREET



Existing View



Massing Simulation

130.06

Source: Square One Productions

1177 Market Street Project

**FIGURE 16: VIEW SOUTHEAST FROM MARKET STREET AT GROVE STREET
NEAR EIGHTH STREET**



Existing View



Massing Simulation

1:30:06

Source: Square One Productions

1177 Market Street Project

FIGURE 17: VIEW EAST FROM MISSION STREET NEAR NINTH STREET



Existing View



Massing Simulation

1-30-06

Source: Square One Productions

1177 Market Street Project

FIGURE 18: VIEW NORTH FROM EIGHTH STREET NEAR HOWARD STREET

IMPACTS

SIGNIFICANCE CRITERIA

The proposed project would result in significant adverse visual quality impacts if it would:

- Substantially degrade or obstruct scenic views from public areas. For the purpose of this analysis, public views are scenic views from existing parks, plazas, major roadways or other public areas.
- Substantially degrade the existing visual character or quality of the site and its surroundings and have a substantial, demonstrable negative aesthetic effect.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views or use of the area.

PROJECT EFFECTS

The proposed project would replace the existing four- to seven-story Trinity Plaza Apartments building and surface parking areas with three residential apartment buildings, ranging from 18 to 26 stories, with stepped roofs whose highest points range from approximately 167 to 240 feet in height to the roof (architectural parapets would increase the height to 170.5 to 243.5 feet). The three proposed buildings would be above a one- to two-story base. The project buildings would generally increase in height from Market Street to Mission Street.

As presented in the Project Description, p. 28, the buildings would be a series of rectangular forms. Each building has a different composition, intended to create a neighborhood of buildings, with some elements arising from street levels, others with openings above street level, and other volumes with overlapping forms.

The base element and towers of all these buildings would be composed of materials similar in quality and appearance to stone and would include glass wall divisions in a geometric pattern, punctuated by deep, recessed voids and other forms of façade articulation. In addition,

Buildings B and C would have vertical recessed slots of seven to nine stories in height, intended to moderate the bulk and to provide visual interest and some views into the project's open space from the street.

The project would include retail frontage on Market Street and Mission Street, and part of the Eighth Street frontage of the site. The entry court, accessible by Market and Eighth Streets would also provide a pedestrian scale element. The buildings would come to the sidewalk along all frontages except at the entry courts. In addition to retail frontage, the project's street-level features, shown on Figure 4, p. 34, would include a pedestrian passage from Market Street into a public plaza through Building B and a landscaped pedestrian way between Eighth Street and the west terminus of Stevenson Street. There would be a major stairway from Mission Street to the residential open space formed by Building A and Building C. Parking and service driveways would be on Mission Street near the east end of the site, and on Eighth Street near Mission Street.

Views

The massing simulations presented in Figures 14 through 18, p. 65 - 70 include the proposed project, and take into account the under-construction 1160 Mission Street building, the under-construction GSA Building, and the hotel proposed at 1125 Market Street.

As shown in Figure 14, p. 65, the view looking southwest from United Nations Plaza would include Building B as a new 18-story element along the south side of Market Street. Building B would replace views of the existing set-back apartment building and continue the mid-rise streetwall of the adjacent 14- and 12-story 1145 and 1155 Market Street buildings. The project would not obstruct views of hills or open space from United Nations Plaza. The GSA Building, 1125 Market Street, and 1160 Mission Street would not be visible from this vantage point looking southwest.

Figure 15, p. 67 shows the view looking east from Civic Center Plaza that would include upper portions of Buildings A, B, and C, visible above the 1155 Market Street building and Main Library. The changes would occur in the background view and would not obstruct views of the existing public buildings of the Civic Center. The project would not obstruct views of hills or open space from the Civic Center Plaza. The under-construction GSA Building is visible south of the Civic Center, east of the project. 1125 Market Street and 1160 Mission Street would not be visible from this vantage point.

Figure 16, p. 68, shows Buildings B and C would introduce a base element two stories high and would rise 18 and 23 stories high, respectively, along Market Street and the east side of Eighth Street. The existing view of 1155 Market Street would be partially obstructed by Building B. The project would replace the moderate-scale massing of existing buildings on the site with high-rise structures built to the sidewalk line. This larger-scale development would be generally consistent with the high-density character of downtown San Francisco. The project would not obstruct views of hills or open space looking southeast from Market Street at Grove Street. The GSA Building, 1125 Market Street, and 1160 Mission Street would not be visible from this vantage point.

Figure 17, p. 69, shows Buildings A and C as new 23- to 25-story elements seen east from Mission Street, between Eighth Street and Ninth Street, above a two-story base streetwall. The existing view of high-rise structures further east along Market Street would be partially obstructed. The project structures would be consistent in scale with the under-construction 23-story 1160 Mission Street building, directly east of the project and the under-construction 18-story GSA Building, east of the 1160 Mission Street building. The project would not obstruct views of hills or open space looking east from Mission Street, between Eighth Street and Ninth Street. The GSA Building, 1125 Market Street, and 1160 Mission Street would not be visible from this vantage point.

In Figure 18, p. 70, Building C, 23 stories high, and the upper part of the Building A, 25 stories high, would be new elements seen north from Eighth Street near Howard Street. The project buildings would be of larger scale than older buildings and newer development in the South of Market district, see in the foreground. Views of the Philip Burton Federal Building on 450 Golden Gate Avenue would be partially obstructed. The project would not obstruct views of hills or open space looking north from Eighth Street near Howard Street. The GSA Building, 1125 Market Street, and 1160 Mission Street would not be visible from this vantage point.

Summary

The proposed project would introduce new building elements to the Mid-Market area. Building B would extend the pattern of streetwall development along Market Street, including ground-floor retail uses and a pedestrian passage to the public plaza. Buildings A and C would introduce a streetwall base element and larger scale structures along Eighth Street and Mission Street with ground-floor retail along Mission Street and a portion of Eighth Street. The Mission Street frontage of Building B would include retail uses, lobby entrances, and a stairway to the plaza. The new development would be similar in scale with the under-construction 23-story apartment building at 1160 Mission Street, and the under-construction 18-story GSA Building at the northwest corner of Seventh Street and Mission Street.

The downtown area is characterized by mid-rise and high-rise buildings typically built to the sidewalk line, with a range of materials, design, and massing. The proposed project would introduce a group of buildings built to the sidewalk line, with contemporary design and materials, and varied massing. The new buildings would be substantially taller than the existing building on the site, and existing buildings south of Mission Street. The massing on the site's full frontage on Market Street, Eighth Street, and Mission Street would be of larger scale than most surrounding development. Some existing buildings in the area, such as the Ramada Plaza Hotel west of Eighth Street and the SF Mart between Ninth and Tenth Streets, have broad building frontages on Market Street that would relate in scale to the project. Those

changes with the project, as in-fill development in an area designated for high density development, would not have an significant effect on visual quality. No views of hills or open space from Civic Center Plaza, United Nations Plaza, other parks, major roadways, or other public areas would be obstructed as a result of the proposed project. Therefore, the project would not have a demonstrable adverse aesthetic effect or would not substantially degrade visual quality in the vicinity.

As discussed in the Initial Study, Appendix A, p. A-18, the project would not have adverse lighting or glare effects.

C. WIND

SETTING

Data from the U.S. Weather Bureau and Bay Area Air Quality Management District show that westerly to northwesterly winds are the most frequent and strongest winds during all seasons in San Francisco.¹ Of the 16 primary wind directions measured at a Weather Bureau Station at the United Nations Plaza (at a height of 132 feet), four directions occur most frequently and account for most of the strongest winds: northwest, west-northwest, west, and west-southwest. Calm conditions occur about two percent of the time. Average wind speeds are highest during summer and lowest during fall. The strongest peak winds, however, occur during winter, when speeds of up to 47 miles per hour (mph) have been recorded.² Typically the highest wind speeds occur during the mid-afternoon hours, and the lowest occur during early morning hours.

Wind conditions affect pedestrian comfort on sidewalks and in other public areas. The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to 4 mph have no noticeable effect on pedestrian comfort. Winds from 4 to 8 mph are felt on the face. Winds from 8 to 13 mph disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. Winds from 13 to 19 mph raise loose paper, dust and dry soil, and disarrange hair. The force of winds from 19 to 26 mph is felt on the body. With winds of 26 to 34 mph, umbrellas are used with difficulty, hair is blown straight, walking steadily is difficult, and wind noise is unpleasant. Winds over 34 mph make it difficult for a person to maintain balance, and gusts can blow a person over.

Large buildings can redirect wind flows around and down to street level, resulting in increased wind speed and turbulence at street level. To provide a comfortable wind environment for San Franciscans, the City established specific comfort criteria for evaluation of proposed buildings.

¹ The U.S. Weather Bureau data used in this analysis were gathered at a weather station atop the Old Federal Building at 50 United Nations Plaza during the years 1945 through 1950. During each of these years, data were taken hourly for 16 wind directions. The database, consisting of 32,795 hourly observations, is of sufficient size to provide a reliable estimate of future wind conditions in San Francisco.

² E. Jan Null, *Climate of San Francisco*, NOAA Technical Memorandum NWS WR-126, February 1978.

The *Planning Code* specifically outlines these criteria for the Downtown Commercial (C-3) Districts and for the Rincon Hill area, Van Ness Avenue area, and part of the South of Market Area.³ The entire project site is within the C-3-G (Downtown General Commercial) zoning district. For this district, Section 148(a) of the *Planning Code* requires that structures be designed to meet pedestrian comfort criteria. In administering Section 148, the Planning Department requires a microclimate analysis, including wind tunnel testing for tall buildings, to determine potential design-specific impacts on pedestrian comfort, and to provide a basis for design modifications to mitigate these impacts if they are significant.

The comfort criteria are based on pedestrian level wind speeds that include the effects of turbulence. These adjusted wind speeds are referred to as “equivalent wind speeds.” Section 148 of the *Planning Code* establishes as comfort criteria equivalent wind speed of 7 mph in public seating areas and 11 mph in areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground-level winds to exceed these levels more than ten percent of the time year round between 7:00 a.m. and 6:00 p.m.⁴ According to the *Planning Code*, if existing wind speeds exceed the comfort level or when a proposed building or addition may cause ambient speed to exceed the criteria, new buildings and additions must be designed to reduce ambient wind speeds to meet these requirements, unless the requirements for an allowable exception as described in Section 148 are met. Compliance with Section 148 would be considered as part of the project review process. As described below in the “Impacts” section, the comfort criterion is currently exceeded at 13 of 30 test locations for existing conditions.

Section 148 of the *Planning Code* also establishes as a hazard criterion an equivalent wind speed of 26 mph for a single full hour per year. No building or addition would be permitted that would cause wind speeds to exceed the hazard level of more than one hour of any year. As described below in the “Impacts” section, the hazardous wind criterion is currently exceeded at four of 30 test locations for existing conditions.

³ *Planning Code*, Section 148, 249.1(3), 243(c)(9), 263.11(c).

⁴ The *Planning Code* specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data cover the hours of 6:00 a.m. to 8:00 p.m. Therefore, observations from two additional evening hours and one additional morning hour are included in these data.

IMPACTS

SIGNIFICANCE CRITERIA

A project would have a significant impact on the environment if it would cause equivalent wind speeds to reach or exceed 26 mph for a single full hour of the year, thus creating new exceedances of the hazard criterion established in *Planning Code* Section 148. A project that would cause exceedances of the comfort standards would not be considered to have a significant impact, although by design, projects are required to reduce exceedances to the extent feasible.

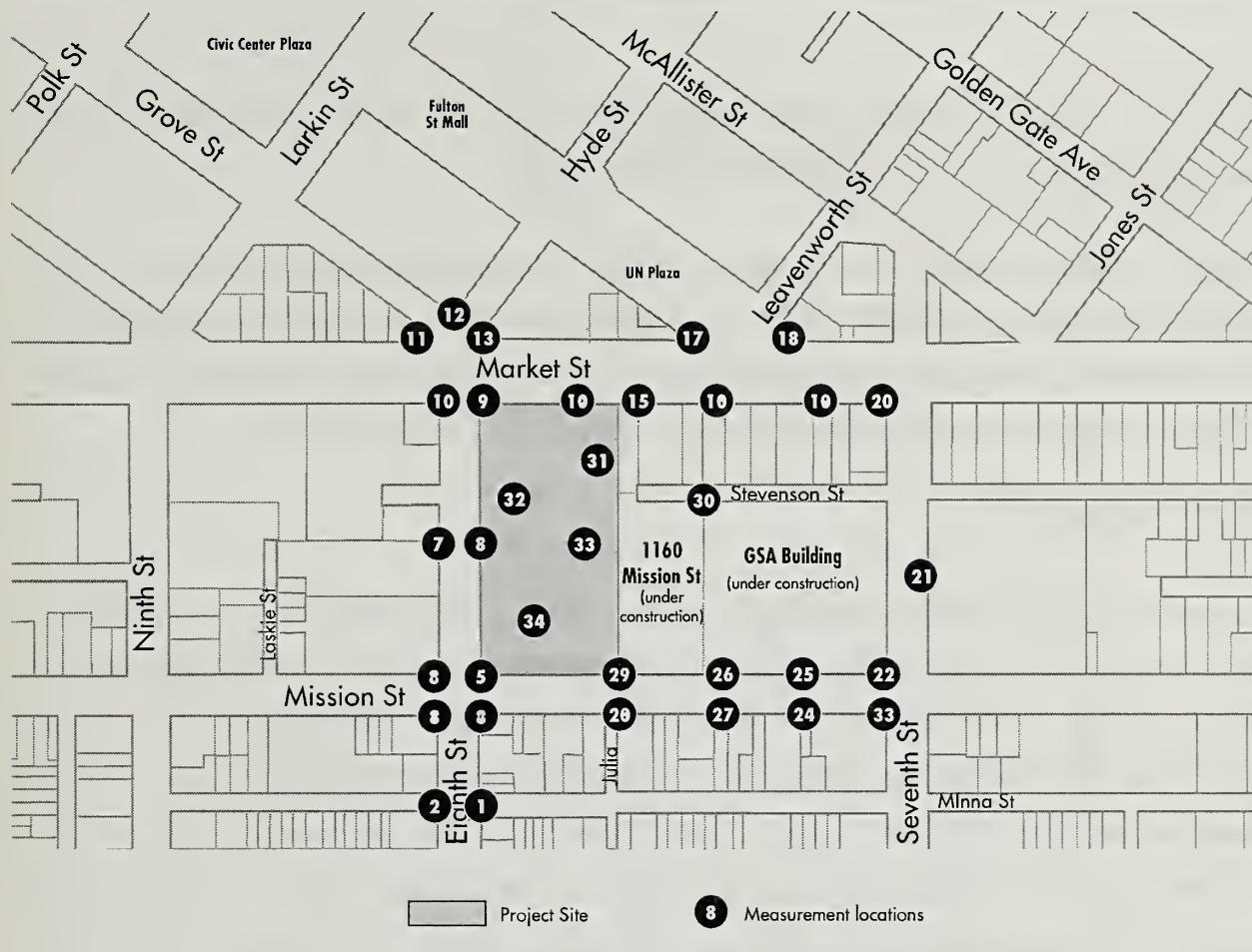
EXISTING CONDITIONS

Using a wind tunnel and a 1:50 scale model of the project site and surrounding several blocks, pedestrian-level wind speed measurements were made at 30 existing test locations and 34 project-condition test locations (See Figure 19).⁵ The additional four locations were included in the proposed plaza area of the project to provide information on the usability of proposed outdoor spaces within the project. The wind tunnel tests followed methodology set forth in *Planning Code* Section 148. Tests were conducted for the proposed project site under existing conditions, conditions with the proposed project, and conditions with the proposed project plus cumulative development. Appendix B presents the test report, which discusses methodology and results in more detail.

The existing conditions included existing buildings and structures in the project vicinity, including the GSA Building and the 1160 Mission Street project, both currently under construction.

Wind speeds currently exceed the *Planning Code*'s comfort criteria of 11 mph at 19 of the 30 sidewalk pedestrian locations tested. These exceedances are generally located along both sides of Market Street north of the project site, both sides of Mission Street north of the project sites and both sides of Eighth Street between Market Street and Mission Street. The highest wind

⁵ Donald J. Ballanti, Certified Consulting Meteorologist, *Wind Tunnel Analysis for the Proposed Trinity Properties Project*, San Francisco, prepared for EIP Associates, September 2005.



1-27-06

Source: Donald J. Ballanti

1177 Market Street Project

FIGURE 19: WIND STUDY MEASUREMENT LOCATIONS

speeds in the vicinity (23 mph) occurs on the east side of Seventh Street between Mission Street and Stevenson Street downwind from the project site.

Twenty-six of the 30 sidewalk test locations currently meet the wind hazard criterion. Four test locations exceed the *Planning Code's* wind hazard criterion (speeds reaching or exceeding the hazard level of 26 mph, as averaged for a single full hour of the year) under existing conditions. Total duration of the four existing exceedances is 148 hours per year.

PROJECT EFFECTS

The proposed project would generally not affect overall wind conditions at the proposed project site and vicinity. The existing conditions in the project vicinity are moderately windy, with the average wind speed for the 30 test location locations approximately 13.3 mph. Table 3 shows the wind velocity under existing conditions, for the proposed project, and under cumulative conditions (described below) and the percentage of time that wind velocity exceeds the *Planning Code* comfort criterion. Exceedances of the comfort criterion are shown in boldface. With the proposed project in place, conditions would be little changed; the average wind speed for all 30 sidewalk test locations would remain about 13.4 mph. The range of wind speeds with the proposed project would be similar to existing conditions, with wind speeds in sidewalk pedestrian areas ranging from 6 mph to 22 mph, compared with a range of 8 to 23 mph under existing conditions. The project would add six new exceedances of the 11 mph pedestrian use criterion and eliminate five existing exceedances, for a total of 20 exceedances, one more than under existing conditions.

As noted in the Project Description, Chapter II, the proposed project includes a canopy, 3 feet out from the building and 20 feet above the ground, which would help reduce any wind impacts at the corner. With the project, compared to existing conditions, wind speed in pedestrian areas would increase at 16 locations, remain unchanged at 4 locations, and decrease at 10 locations. The highest wind speeds (22 mph) would occur downwind from the project site, on the east side of Seventh Street, between Stevenson Street and Mission Street.

TABLE 3
WIND COMFORT ANALYSIS

Location	Criterion (mph)	Existing		Project		Cumulative	
		Velocity (mph)	% Time Above Criterion	Velocity (mph)	% Time Above Criterion	Velocity (mph)	% Time Above Criterion
1	11	14	18	17	29	17	32
2	11	8	4	9	3	11	9
3	11	10	8	14	25	14	19
4	11	10	9	19	39	19	42
5	11	13	15	20	36	19	33
6	11	9	6	15	27	15	26
7	11	15	17	17	21	17	21
8	11	15	23	15	25	17	29
9	11	18	34	13	20	14	22
10	11	19	36	17	30	18	37
11	11	9	3	10	5	10	7
12	11	9	4	9	3	10	6
13	11	9	4	10	8	12	15
14	11	9	7	12	12	13	20
15	11	11	9	13	18	13	18
16	11	13	17	17	30	16	31
17	11	12	15	13	20	13	21
18	11	14	21	15	24	14	24
19	11	11	10	15	21	15	26
20	11	17	33	17	31	16	29
21	11	23	42	22	37	22	35
22	11	11	11	11	10	11	11
23	11	13	18	12	13	11	10
24	11	13	16	9	2	8	1
25	11	12	16	10	8	11	10
26	11	14	22	7	1	7	1
27	11	20	39	6	0	6	0
28	11	12	15	10	7	10	5
29	11	20	43	12	12	12	12
30	11	15	23	16	28	19	38
31	11	-	-	12	14	12	16
32	11	-	-	13	20	12	16
33	11	-	-	11	9	10	7
34	11	-	-	17	36	15	29
Average		13.3	18%	13.4	19%	13.7	20%

Source: Donald J. Ballanti, Certified Consulting Meteorologist.

Note: Exceedances are in boldface.

Wind at the three of the four interior plaza locations would be above the 11 mph sidewalk pedestrian comfort criterion (locations 31, 32, and 34). At these locations (which would only be accessible to project residents), wind speeds using the comfort criteria methodology would be between 12 and 17 mph. Implementation of Improvement Measure A.1, in Chapter IV, Mitigation and Improvement Measures, would further reduce the potential effects, including that interior plazas and walkways could be landscaped to reduce wind and improve usability. Porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) would be used when possible and wind sheltering elements would be high enough to shelter the area in question.

Overall, wind speed increases associated with the proposed project would be 9 mph or less. The project would also result in a decrease in wind speed at ten locations.

WIND HAZARD CRITERION

Twenty-six of the 30 sidewalk test locations currently meet the wind hazard criterion. Under existing conditions, four test locations exceed the *Planning Code* wind hazard criterion (speeds reaching or exceeding the hazard level of 26 mph, as averaged for a single full hour of the year). Total duration of the four existing exceedances is 148 hours per year (see Table 4).

With the project, three exceedances of the wind hazard criterion (location 24, Mission Street near Seventh Street; location 27, Mission Street mid-block; and location 30, Stevenson Street) would be eliminated, while two new exceedances at locations 5 and 7 (on Eighth Street near Mission Street and on Eighth Street mid-block, see Figure 19, p.) would occur. The exceedance of the wind hazard criterion at location 21 on Seventh Street would remain. Total duration of all wind hazard exceedances would be 144 hours per year, compared with 148 hours per year under existing conditions, for a reduction of 4 hours per year. Because the project would eliminate three hazardous wind exceedance locations and create two new locations, for a net decrease of one location, and would decrease total hours per year of hazardous wind exceedance at the test locations, the project would not have a significant adverse effect on hazardous winds.

TABLE 4
WIND HAZARD CRITERION
(ANNUAL HOURS OF EXCEEDANCE)

Location	Existing	Project	Cumulative
4			1
5		3	1
7		8	5
8			4
9			3
21	140	133	132
24	2		
27	5		
30	1		23
Total Hours	148	144	169

Source: Donald J. Ballanti, Certified Consulting Meteorologist.

Notes:

- a. This table only includes test locations that have hazardous wind occurrences.
- b. The frequency of short-term (3-minute averaged) wind observations at 36 mph is equivalent to the frequency of an hourly averaged wind of 26 mph, the wind hazard criterion established in San Francisco Planning Code Section 148.

CUMULATIVE EFFECTS

The analysis of cumulative effects on wind conditions accounts for the following projects that are currently approved or under review with the City of San Francisco:

- 1125 Market Street
- Mercy Housing Project at 1390 Mission Street
- 55 Ninth Street
- 77 Van Ness Avenue
- 1 Polk Street
- SF Mart addition at 1355 Market Street
- Tenth/Market/Mission Streets Mixed-Use Project

Under the cumulative scenario, the average wind speed for all 30 sidewalk test locations would remain about 13.7 mph. Wind speeds in sidewalk pedestrian areas would range from 7 mph to 22 mph, compared with a range of 8 to 23 mph under existing conditions. Cumulative

development would add one new exceedance of the pedestrian comfort criterion (location 13, at Market Street near Hyde Street) and eliminate one existing exceedance (location 23, on Mission Street near Seventh Street), for a total of 20 exceedances, one more than under existing conditions.

With regard to the wind hazard criterion, four new exceedances would occur at locations 4, 8, and 9 (at Eighth Street/Mission Street intersection, Eighth Street mid-block, and Eighth Street/Market Street intersection, respectively). Location 30, on Stevenson Street, would have 23 hours under the cumulative scenarios, would exceed one hour over existing conditions, and would not be exceeded with the project. Total duration of all wind hazard exceedances would be 169 hours per year, compared with 148 hours per year under existing conditions.

In the cumulative case, two new hazardous wind exceedances would occur immediately adjacent to the project on Eighth Street (locations 8 and 9). The proximity of these locations to the project indicates that these changes appear to be generated by cumulative projects on the south side of Market Street.

Wind tunnel tests conducted for the 1160 Mission Street project, which assumed existing conditions at the 1177 Market Street project site, found that cumulative development would increase the number of hours of exceedance at the same locations as shown with project tests. The 1160 Mission Street project test also found that adding the proposed 1177 Market Street project reduced the frequency of cumulative wind hazard exceedances along Seventh Street and eliminated cumulative wind hazard exceedances along Stevenson Street. Therefore, the cumulative analyses indicate that the proposed project would tend to reduce overall total hours of hazardous winds.⁶ The project would not contribute to cumulative hazardous wind effects.

Improvement Measure A.2 in Chapter IV, Mitigation and Improvement Measures, would be to implement provision of street trees along the Eighth Street frontage of the project would to

⁶ Ballanti, Donald J., Certified Consulting Meteorologist, Consideration of Cumulative Impacts for the 1177 Market Street Project, San Francisco, memorandum to Michael Rice, EIP Associates, December 16, 2005. This study is on file and available for public review by appointment, at the Planning Department, 1660 Mission Street, Fifth Floor.

III. Environmental Setting and Impacts
C. Wind

reduce the observed cumulative impacts affecting Eighth Street. Mature landscaping can reduce wind speeds up to 2 mph and can reduce occurrence of hazardous winds.

D. SHADOWS

SETTING

Public open space in the project vicinity that could be affected by project shadows include Civic Center Plaza, between McAllister and Grove Streets and Polk and Larkin Streets, about one block northwest of the project site; United Nations Plaza, which extends to Market Street, to the north of the project site; and the Fulton Street Mall, which extends along Fulton Street between Hyde and Larkin Streets, and is also to the north of the project site. Civic Center Plaza is under the jurisdiction of the Recreation and Park Department and thus is subject to Section 295 of the *Planning Code* regarding shadows on open spaces. United Nations Plaza and the Fulton Street Mall are under the jurisdiction of the Department of Public Works; potential shadow impacts on these two open spaces are not subject to Section 295, but are covered under Section 147 of the *Planning Code*.

The existing four- to seven-story building on the proposed project site casts shadow on streets and sidewalks in its vicinity; however, existing shadows created on the project site do not reach nearby public open spaces during mid-morning to mid-afternoon hours (10:00 a.m. and 3:00 p.m.).

IMPACTS

SIGNIFICANCE CRITERIA

Planning Code Section 295, adopted in 1984 pursuant to voter approval of Proposition K, prohibits the issuance of building permits for structures over 40 feet in height that would cast shade on or shadow property under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission (between one hour after sunrise to one hour before sunset at any time of year), unless the City Planning Commission, in consultation with the General Manager of the Recreation and Park Commission, determines that the shade would not have a significant adverse impact on the use of such property. As noted above, Civic Center Plaza is under the jurisdiction of the Recreation and Park Department, and is subject to Section 295.

Planning Code Section 146, Sunlight Access to Public Sidewalks in C-3 Districts, requires new structures and additions to existing structures on parcels which abut on the side of certain identified streets to avoid penetration of a sun access plane defined by an angle sloping away from the street above a height at the property line abutting the street. Market Street between Second and Tenth Streets requires a sun access angle of 50 degrees above a street wall height of 119 feet. Section 146 permits exceptions through Section 309 in cases where (1) the penetration of the plane does not create shadow because of the shadow already cast by other buildings, or (2) the shadow is deemed insignificant because of the limited extent or duration of the shadow or because of the limited public use of the shadowed space.

In addition, Section 147 of the *Planning Code* states that any new development in C-3 Districts where the building height exceeds 50 feet should be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site in question, to reduce substantial shadow impacts on public plazas and publicly accessible spaces, other than those protected by Section 295. Factors to be taken into account in the determination of shadow impacts include the amount of open area shadowed, the duration of the shadow, and the importance of sunlight to the utility of the type of open space being shadowed.

PROJECT EFFECTS

A shadow analysis was conducted to evaluate the proposed project's potential effects on the project vicinity. Figure 20 is a shadow fan identifying the maximum extent of all project-related shadows from one hour after sunrise to one hour before sunset for an entire year.¹ Shadow patterns for existing, proposed, and approved buildings in the project area (including existing buildings on-site) and the proposed project are shown in Figures 21 through 24 for representative times of the day during the four seasons: during winter and summer solstices, when the sun is at its lowest and highest, and during spring and fall equinoxes, when the sun is at its midpoint. Shadow conditions from July through December mirror conditions from January through June (notwithstanding daylight saving time).

¹ The shadow analysis, conducted by CADP Associates, is on file at the Planning Department and available for public review.

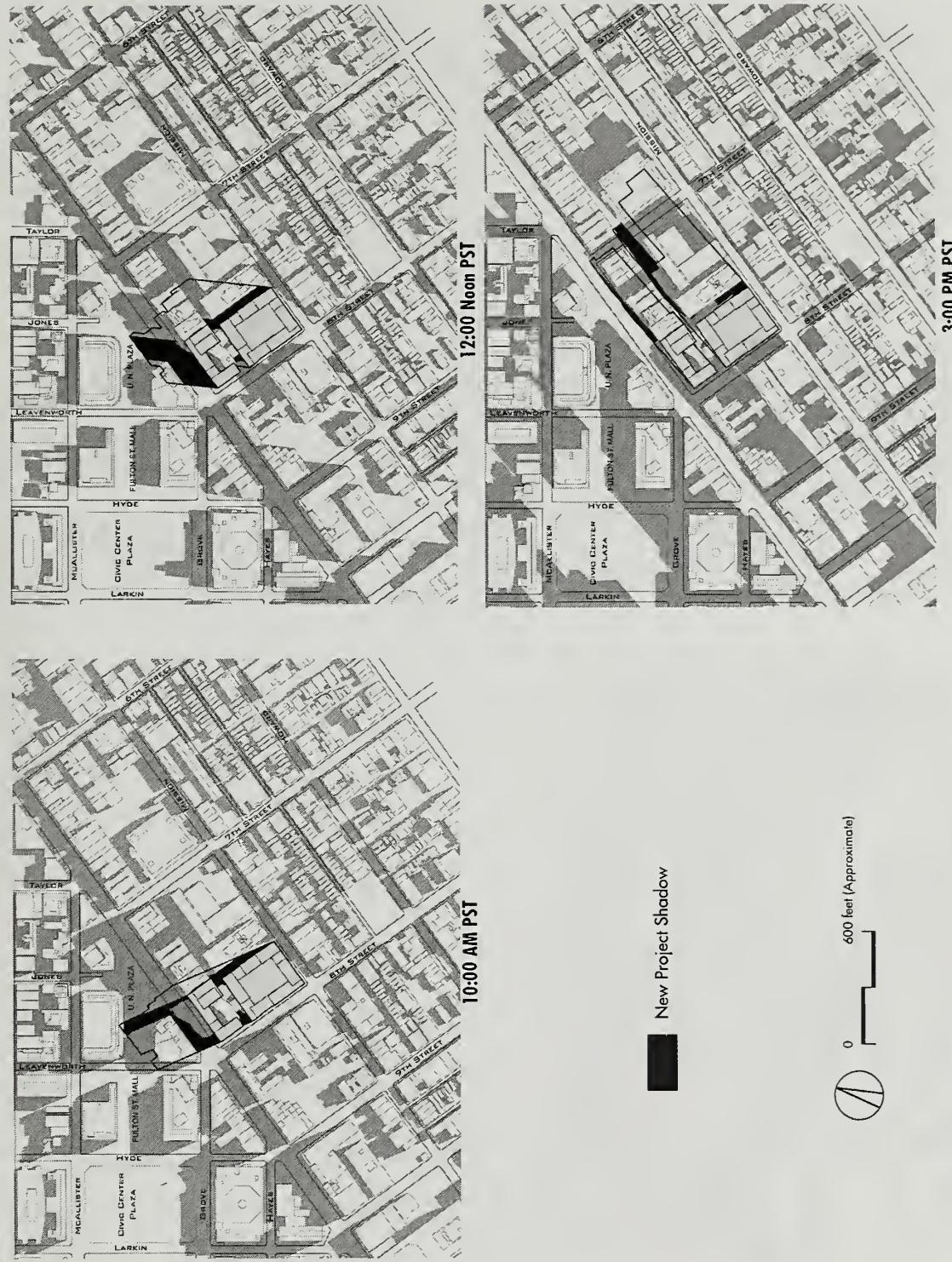


FIGURE 20: PROPOSED PROJECT YEAR-ROUND SHADOW TRACE

Source: CAD 1:8,000

1-27-06

1177 Market Street Project



127.06

Source: CADP 7.19.05

1177 Market Street Project

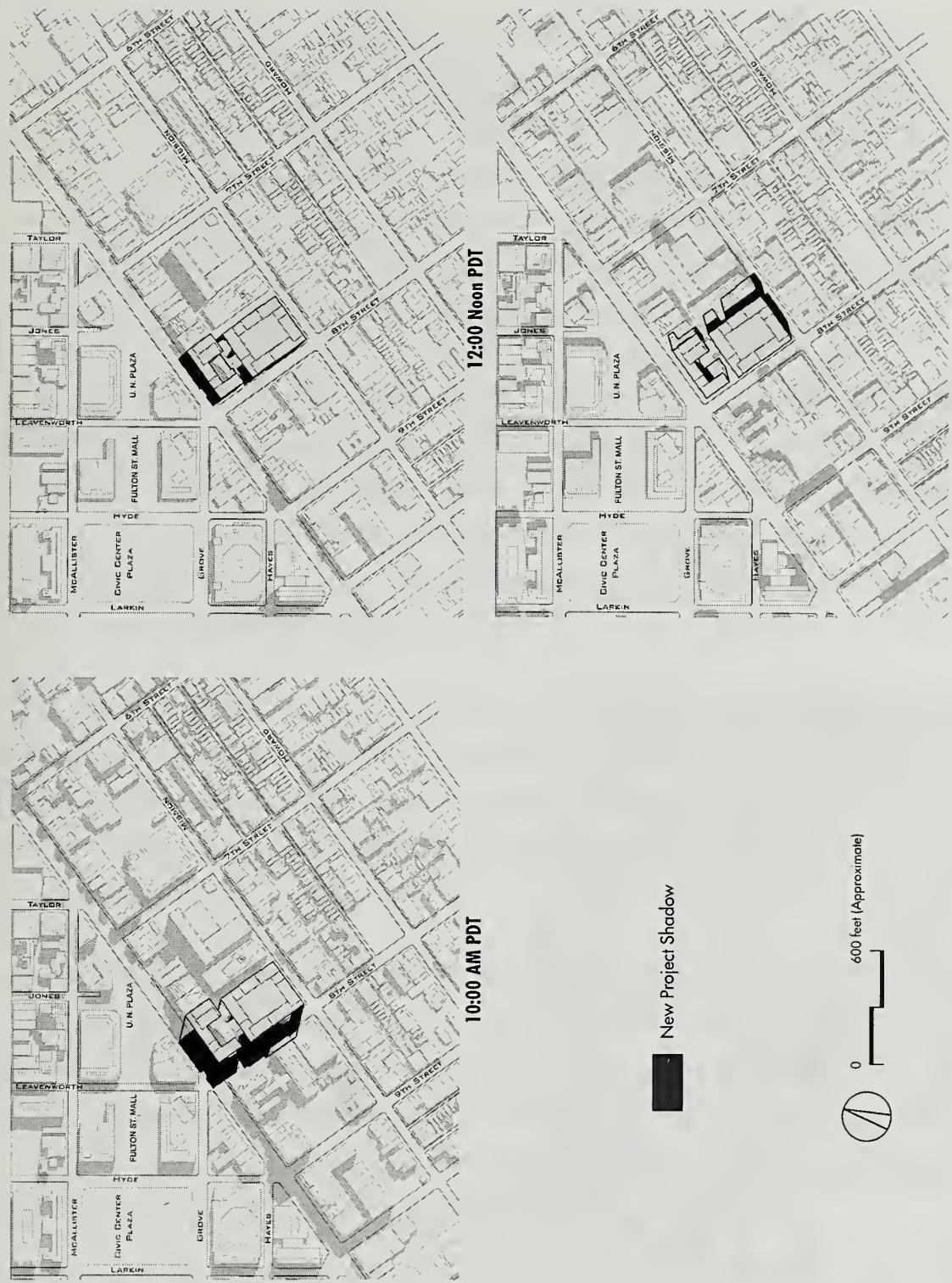
FIGURE 21: SHADOW PATTERNS — DECEMBER 21



Source: CADP 7.19.05

1177 Market Street Project

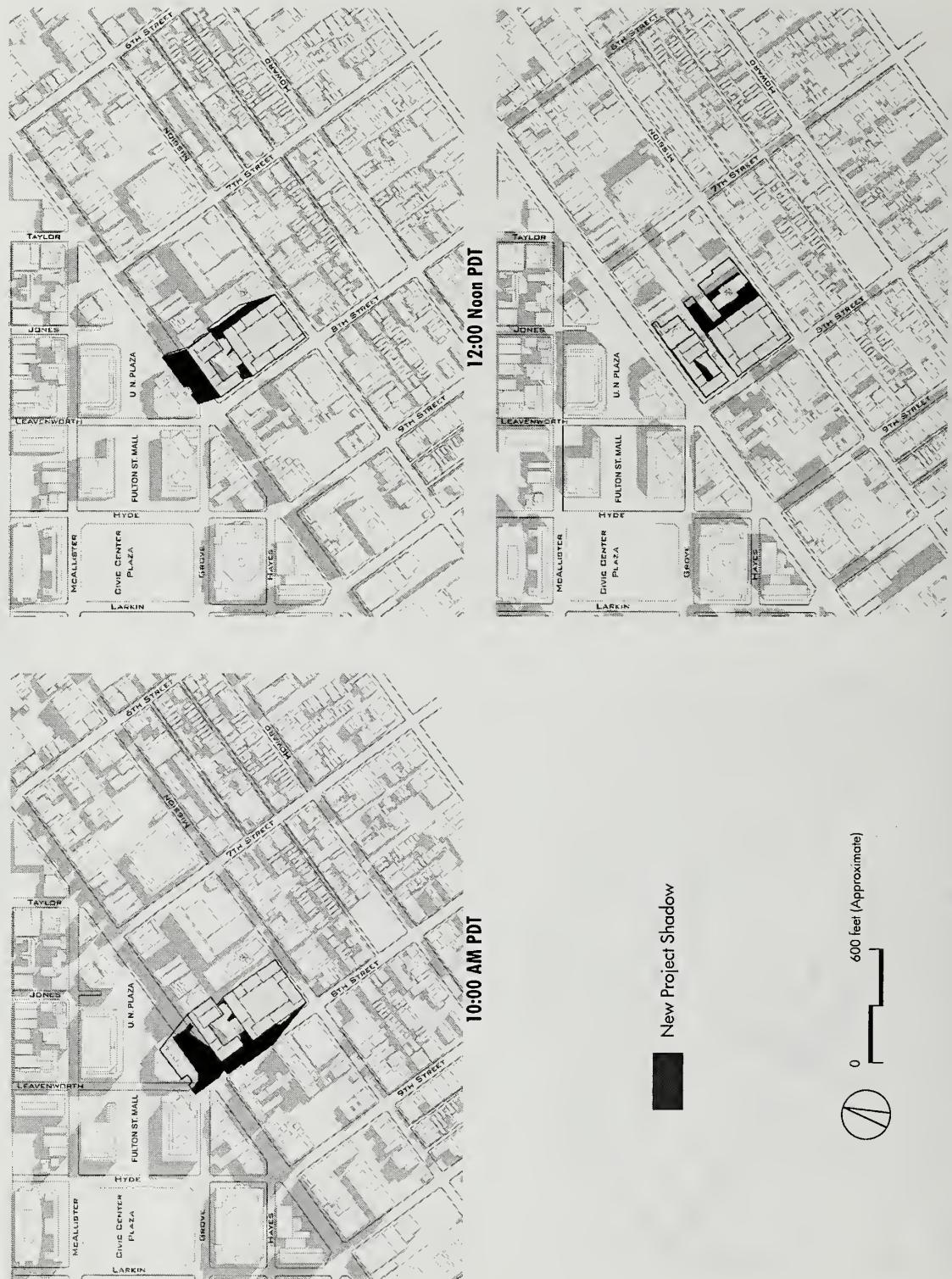
FIGURE 22: SHADOW PATTERNS — MARCH 21



127 06
Source: CADp / 1905

1177 Market Street Project

FIGURE 23: SHADOW PATTERNS — JUNE 21



New Project Shadow



1:27.06

Source: CADP 7/19/05

1177 Market Street Project

12:00 Noon PDT

3:00 PM PDT

10:00 AM PDT

FIGURE 24: SHADOW PATTERNS — SEPTEMBER 21

The times selected for analysis include 10:00 a.m., noon, and 3:00 p.m. Pacific Standard Time (PST) in December and March, and Pacific Daylight Time (PDT) in June and September. The analysis includes shadow cast on streets, sidewalks, pedestrian areas, and open space in the area of potential project impact. The diagrams show existing and approved building shadow in lighter shading. Existing buildings include projects that are under-construction, including 1160 Mission Street and the GSA Building. The proposed 1125 Market Street hotel has not been included in the shadow study because it is currently under review. That 12-story project would not affect shadow conditions on Civic Center Plaza.

Other projects that have been approved or are currently under review and would be located in the vicinity of the project site, but not within the project block or adjacent to the project site include, Mercy Housing, 55 Ninth Street, 77 Van Ness Avenue, 1 Polk Street, the SF Mart addition, and the Tenth/Market/Mission Streets Mixed-Use Project. As these projects would not affect the project shadow due to their distance from the project, these projects have not been included in the shadow study.

The proposed project's shadow boundary is outlined and darker shading represents the potential net new shade resulting from the project. The outline shows the maximum shade, as if there were no existing shade from intervening buildings. For purposes of this analysis, existing shadow in these figures includes the current built environment and the new shadow that would be cast by the project.

The shadow analyses show that there would not be any net new shading from the proposed project on the public open space in the project vicinity covered by Section 295 (Civic Center Plaza), or on Fulton Street Mall, during the hours of 10:00 a.m. to 3:00 p.m. The project would add shade in morning hours to United Nations Plaza, as discussed below, under "December 21." Shadow effects on those three open spaces that would occur at the other times are discussed further under "Effects on Open Space," below.

December 21

At 10:00 a.m. on December 21, the proposed project would cast new shadow on approximately 60 feet of sidewalk on the northwest corner of the project site along Market Street and up to 20 feet of sidewalk on the east end of the project site along Market Street. A new shadow of about 300 feet would be cast over the north side of Market Street, including the sidewalk. The project would also cast a new shadow approximately 250 feet long and 70 feet wide within United Nations Plaza. An additional arc of net new shadow about 380 feet in length, between Mission Street and Stevenson Street, would fall along the east side of the project site, the site of the under-construction 1160 Mission Street project. This shadow would also cover the 50 foot wide plaza entrance between project Buildings A and B for up to 35 feet, extending from Stevenson Street. A new shadow would also cover the 50-foot wide plaza entrance between Buildings B and C for up to 80 feet, extending from Eighth Street.

At noon, net new shadow of about 310 feet in length would be cast between Seventh Street and Eighth Street, including portions of the sidewalks on both sides of Market Street. An area of up to 145 feet long and 160 feet wide of net new shadow would fall on a portion of United Nations Plaza and the adjacent sidewalk. New net shadow of up to 380 feet between Mission Street and Stevenson Street from 50 to 70 feet wide would be cast to the east of the project site, the site of the under-construction 1160 Mission Street project. This shadow would also cover the 50-foot wide plaza entrance between Buildings A and B, extending from Stevenson Street, for about 30 feet. A new shadow would also cover the 50-foot wide plaza entrance between Buildings B and C for up to 45 feet, extending from Eighth Street.

At 3:00 p.m., net new shadow up to 460 feet in length would fall along the south side of Market Street, including the sidewalk, between Seventh Street and Eighth Street. A portion of Seventh Street, including sidewalks, of approximately 60 and 80 foot-wide sections between Market Street and Mission Street, would be affected by net new shadow. About 500 feet of net new shadow would also be cast along portions of Stevenson Street between Seventh Street and its terminus at the project site. Also, new net shadow approximately 40 feet long and 80 feet wide between Mission Street and Stevenson Street, would be cast to the east of the project site (the site of the under-construction 1160 Mission Street project).

The project would not add shade to Civic Center Plaza or to Fulton Street Mall at these times in December.

March 21

At 10:00 a.m. on March 21, the project would shade about 310 feet of Market Street between Seventh Street and Eighth Street, including both sidewalks. The project would also cast up to 540 feet of net new shadow along the east side of Eighth Street, including the sidewalk. This shadow would also cover the 50-foot plaza entrance between Buildings B and C for 90 feet, extending from Eighth Street. A new shadow would also cover the 50-foot wide plaza entrance between Buildings A and B for up to 40 feet, extending from Stevenson Street. A 30 by 45-foot section within the plaza, between Buildings B and C, would also be shaded by the project.

At noon, the project would shade about 310 feet along the south side of Market Street, including the sidewalk. A new net shadow up to 390 feet, between Mission Street and Stevenson Street, would be cast to the east of the project site, the site of the under-construction 1160 Mission Street project. This shadow would also cover the 50-foot wide plaza entrance between Buildings A and B for up to 30 feet, extending from Stevenson Street. A new shadow would also cover the 50-foot wide plaza entrance between Buildings B and C for up to 90 feet, extending from Eighth Street.

At 3:00 p.m., net new shadow would fall on up to 600 feet of Mission Street between Seventh Street and Eighth Street, including the north sidewalk. A new net shadow approximately 340 feet long, between Mission Street and Stevenson Street, and 40 feet wide, between Seventh Street and Eighth Street, would be cast to the east of the project site, the site of the under-construction 1160 Mission Street project. A new net shadow, approximately 130 feet in length and up to 40 feet in width, would cover a section of the project site within the Building B retail plaza.

The project would not add shade to Civic Center Plaza, Fulton Street Mall, or United Nations Plaza at these times in March.

June 21

At 10:00 a.m. on June 21, net new shadow would fall upon approximately 310 feet of Market Street, including the south sidewalk along the project site. New shadow from the proposed project building would also fall along up to 570 feet of Eighth Street between Mission Street and Market Street, including both sidewalks. This shadow would also cover the 50-foot wide plaza entrance between Buildings B and C for about 60 feet, extending from Eighth Street. A section within the plaza, approximately 20 feet along Building C and extending 40 feet from Building C, would also be shaded by the project.

At noon, net new shadow would fall upon approximately 310 feet of Market Street, along the southern sidewalk. Up to 390 feet of new shadow would fall on the eastern sidewalk along Eighth Street, between Mission Street and Market Street. This shadow would also cover the 50-foot wide plaza entrance between Buildings B and C for up to 90 feet, extending from Eighth Street. A small section within the plaza, approximately 30 feet along Building C and 40 feet extending from Building C, would also be shaded by the project. Additionally, new net shade would cover the 50-foot plaza entrance between Buildings A and B for up to 35 feet, extending from Stevenson Street.

At 3:00 p.m., 360 feet of Mission Street between Seventh Street and Eighth Street, including the northern sidewalk, would be in shadow cast by the proposed project. A new net shadow up to 225 feet, between Mission Street and Stevenson Street, would be cast to the east of the project site, the site of the under-construction 1160 Mission Street project. Net new shadow would also be cast over a section of Stevenson Street, approximately 60 feet long and 20 feet wide, to the southeast of Building B. A new net shadow, approximately 130 feet in length and up to 40 feet in width, would cover a section of the project within the Building B retail plaza.

The project would not add shade to Civic Center Plaza, Fulton Street Mall, or United Nations Plaza at these times in June.

September 21

At 10:00 a.m. on September 21, the project would shade about 310 feet of Market Street between Seventh Street and Eighth Street, including both sidewalks. Additionally, the project would shade about 575 feet of Eighth Street between Mission Street and Market Street, including portions of both sidewalks. This shadow would extend beyond Market Street, along the Eighth Street alignment, by about 50 feet and cover the northwest corner of Market Street and Leavenworth Street and northeast corner of Leavenworth Street and Grove Street, including portions of the sidewalks on both sides of Leavenworth Street. This shadow would also cover the 50-foot plaza entrance between Buildings B and C for about 50 feet, extending from Eighth Street. A section within the plaza, approximately 30 feet along Building C and extending 40 feet from Building C, would also be shaded by the project. Additionally, new net shade would cover the 50-foot plaza entrance between Buildings A and B for up to 30 feet, extending from Stevenson Street.

At noon, the project would shade about 310 feet of Market Street between Seventh Street and Eighth Street, including both sidewalks. A new net shadow up to 390 feet between Mission Street and Stevenson Street would be cast to the east of the project site, the site of the under-construction 1160 Mission Street project. This shadow would also shade the 50-foot wide plaza entrance between Buildings A and B for up to 50 feet, extending from Stevenson Street. The 50-foot plaza entrance between Buildings B and C would be shaded for up to 85 feet, extending from Eighth Street. A section within the plaza, approximately 20 feet along Building C and extending up to 45 feet from Building C, would also be shaded by the project.

At 3:00 p.m., a new net shadow up to 350 feet between Mission Street and Stevenson Street, ranging from 30-170 feet between the project site and Seventh Street, would be cast to the east of the project site, the site of the under-construction 1160 Mission Street project. Net new shadow, about 300 feet in length and 10 feet in width, would also fall on a part of the southern sidewalk of Market Street between Seventh Street and Eighth Street. A new net shadow, approximately 130 feet in length and up to 40 feet in width, would cover a section of the project within the Building B retail plaza.

The project would not add shade to Civic Center Plaza, Fulton Street Mall, or United Nations Plaza at these times in September.

EFFECTS ON OPEN SPACE

Civic Center Plaza

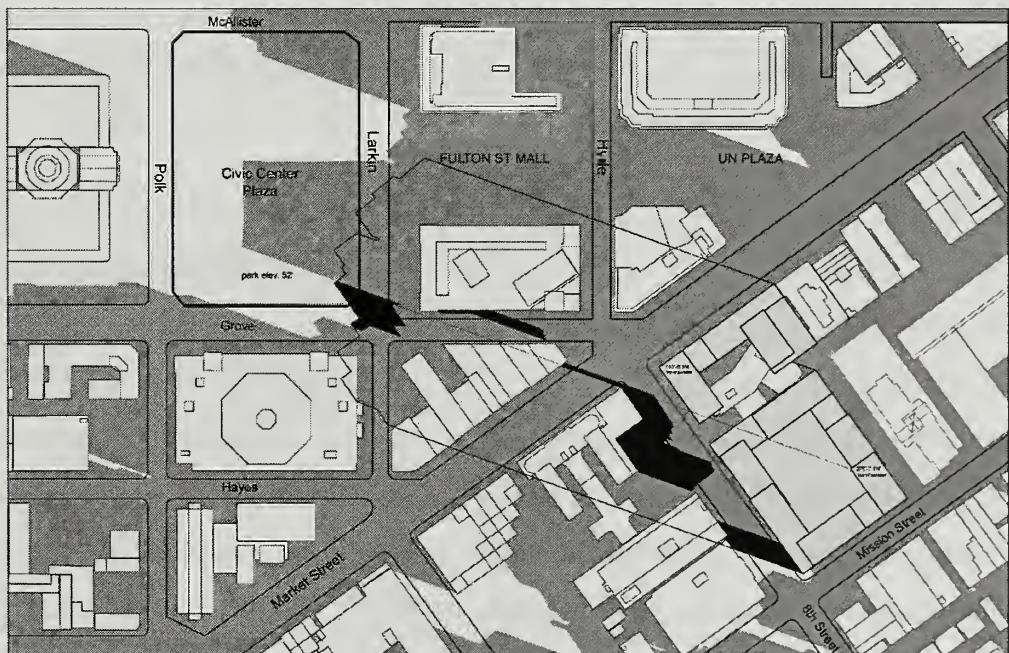
As noted above, Section 295 of the *Planning Code* prohibits new shadow upon existing spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet in height unless the new shadow is found to be not significant or adverse by the San Francisco Planning Commission, acting with the advice of the General Manager of the Recreation and Park Department, after consultation with the Recreation and Park Commission.

The proposed project would add shade to the southeastern corner of Civic Center Plaza, from about September 1 to September 30, and from about March 10 to April 10. The shade would occur in the first 5 to 15 minutes one hour after sunrise on those days, or about 7:45 to 8:00 a.m. PDT, and 6:45 to 7:00 a.m. PST. Civic Center Plaza is 222,995 sq. ft., or about 5.12 acres in total area. The new shade would add a maximum of about 1,600 sq. ft. of new shade on September 27 (and March 10), and about 166 net square-foot-hours of new shade on that day. Figure 25 illustrates project shadow effects on September 13 and 27. There would be a total annual increase of 5,293 square-foot-hours of shade, compared to 827,248,613 square-foot-hours of sun on Civic Center Plaza.² The project would add, thus on an annual basis, about 0.00064 percent new square-foot-hours of shade to Civic Center Plaza. According to shadow guidelines for the Civic Center Plaza adopted by the Planning Commission in Motion 16216, Civic Center Plaza has an allowable cumulative shadow limit of 1.12 percent, with existing buildings consuming 1.1159 percent of the available sunlight. The remaining allowable increase is therefore 0.0041 percent in annual square-foot-hours. The adopted guidelines for Civic Center Plaza also note a goal of limiting new shadow in afternoon periods. The project's shadow effects would be within this annual limit, and would affect a limited area of the plaza for about 15 minutes a day in the early morning for two months of the year. Based on the amount and location of the project's shadow effects on Civic Center Plaza,

² This total is the theoretical amount of sunlight that would fall on the park per year, discounting weather effects and shadows from any surrounding structures.



September 13, Sunrise +1hour (7:50 AM PDT)



September 27, Sunrise +1hour (8:03 AM PDT)



New Project Shadow

1-31-06

Source: CADP

1177 Market Street Project

FIGURE 25: CIVIC CENTER PLAZA SHADOW

it is likely that the impacts would not be considered significant adverse environmental impacts. This finding is subject to a final determination by the Planning Commission, acting with the advice of the Director of the Recreation and Park Department and in consultation with the Recreation and Park Commission.

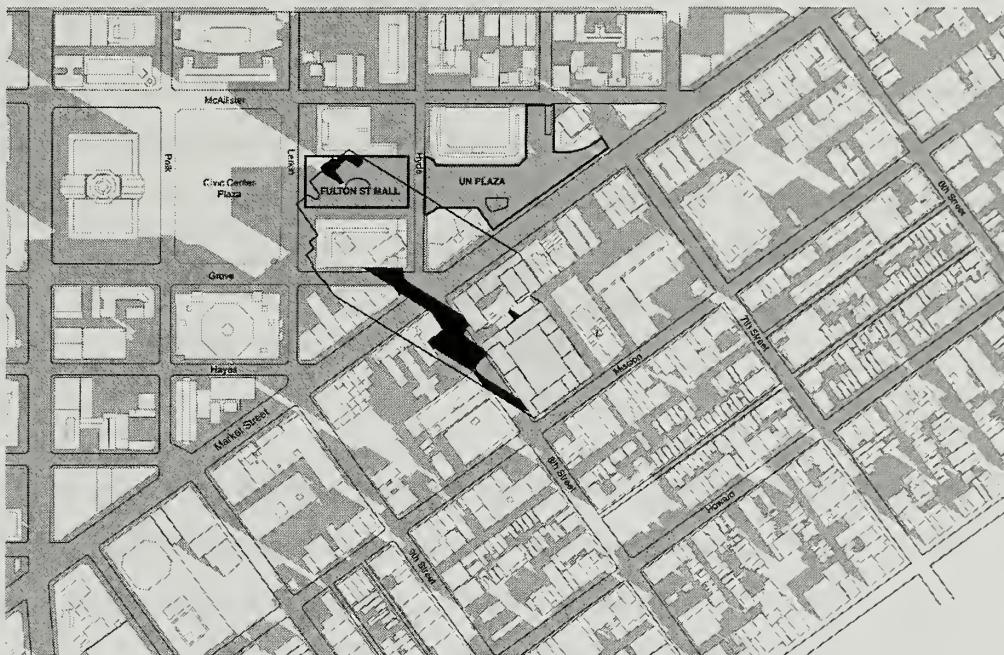
United Nations Plaza

The project would add shade to portions of the Fulton Street Mall and United Nations Plaza. These spaces are not under San Francisco Recreation and Park Department jurisdiction.

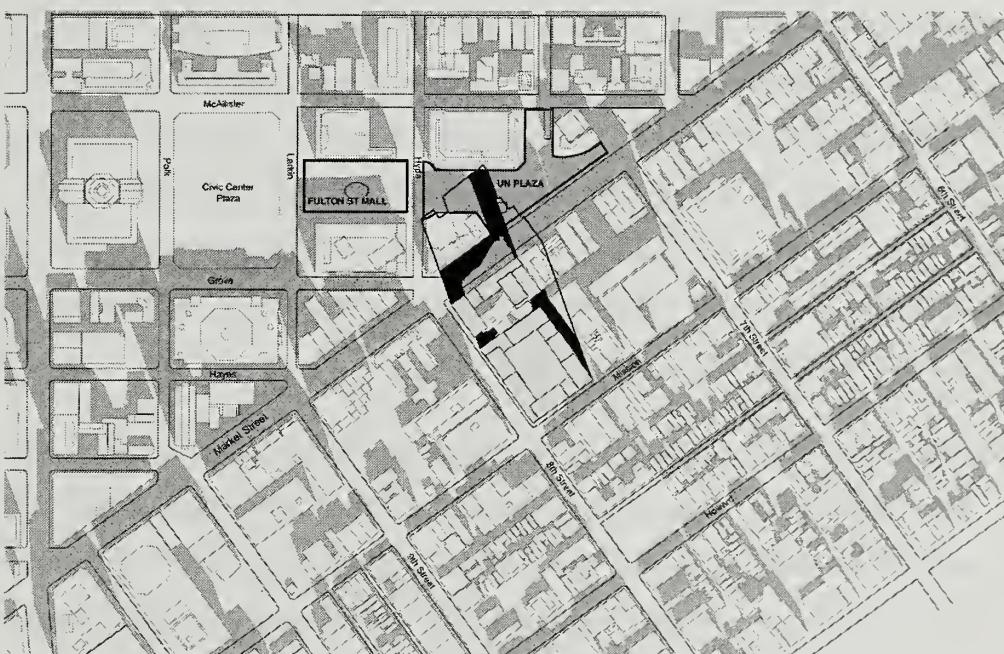
United Nations Plaza is an irregular open space, generally bordered by Market Street on the south, Hyde Street on the west, and the Old Federal Building to the north (See Figure 26). Fulton Street Mall consists of a rectangular area located about a block north of the proposed project, on Fulton Street between Hyde Street and Larkin Street (see Figure 26). Activities at United Nations Plaza include the Heart of the City Farmers Market on Wednesdays and Sundays, and a craft market on other weekdays.

The project would add some shade to United Nations Plaza, increasing from about August 30 to late December, and decreasing from December to about mid-April. There would be no new project shadow from mid-April to late August. New shading would occur for one half-hour on August 30 and April 10), with about 50 to 90 sq. ft. of new shaded area. New shadow cast on United Nations Plaza would increase during midday. On about December 20, new shadow would occur from 8:15 a.m. to 2:45 p.m. The maximum effect would be at 10:15 a.m. on December 20, when the project would shade about 13,894 sq. ft. on United Nations Plaza (see Figure 26). The project would complete the shading of most of United Nations Plaza at this time.

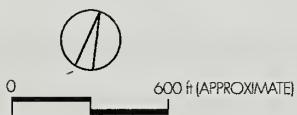
There is no adopted guideline for increases in annual square-foot-hours of shade on United Nations Plaza. For informational purposes, on an annual basis, the proposed project would result in about 5,058,178 new square-foot hours of shadow on United Nations Plaza, compared to about 287,070,000 square-foot hours of sun. The proposed project would result in a 1.76 percent increase in shade square-foot hours.



October 18, 8:30 AM PDT



December 20, 10:15 AM PST



New Project Shadow

1-27-06

Source: CADP

1177 Market Street Project

FIGURE 26: UN PLAZA AND FULTON STREET MALL SHADOW

The increased shade on United Nations Plaza would be limited to morning hours, with greatest effects during winter months. The use of the plaza for the farmers market and craft market occur year round, independent of weather conditions. The project shade conditions would not substantially affect the market uses. The project effects, therefore, would not result in a significant adverse impact on the environment.

Fulton Street Mall

Fulton Street Mall is planned as open space, but is currently partially open as a thoroughfare with parking at the curbs. The wide sidewalks and landscaped areas near the Main Library and the Asian Art Museum adjoin the open space. The fenced Pioneer Monument at the center of Fulton Street is not considered accessible open space.

The project would add some shade on Fulton Street Mall, from about September 20 to December, and from December to about March. At about 8:15 a.m. on September 20, the project would add about 4.3 new sq. ft. The amount of shadow cast would increase in the morning hours, until around December 20 when shadow would be cast for the longest period, from 8:15 a.m. to 9:50 a.m. On October 18, at 8:30 a.m., the project would shade about 10,335 sq. ft. of Fulton Street Mall, or about 11,092 square-foot-hours, the maximum square-foot-hour condition (see Figure 26, p. 101).

There is no adopted guideline for increases in annual square-foot-hours of shade on Fulton Street Mall. For informational purposes, on an annual basis, the project would add about 571,245 new square-foot hours on Fulton Street Mall, compared to about 217,051,100 square-foot-hours of sun. The project would result in a 0.26 percent total increase in shade square-foot hours.

The increased shade on Fulton Street Mall would affect areas not currently developed as open space. If Fulton Street Mall were more intensively developed as open space in the future, the project shading, occurring no later than about 9:50 a.m., would not have a substantial adverse effect on its overall use in midday and afternoon hours. These effects, therefore, would not result in a significant effect on the environment.

OTHER EFFECTS

The net new shading of street and sidewalks that would result from the project would be limited in scope, and would not increase the total amount of shading above levels that are common and generally accepted in urban areas. These would not be considered significant shadow effects.

Overall, the project would not have significant adverse effects on shadow conditions on public open space, streets, or sidewalks.

E. TRANSPORTATION¹

SETTING

EXISTING ROADWAY FACILITIES

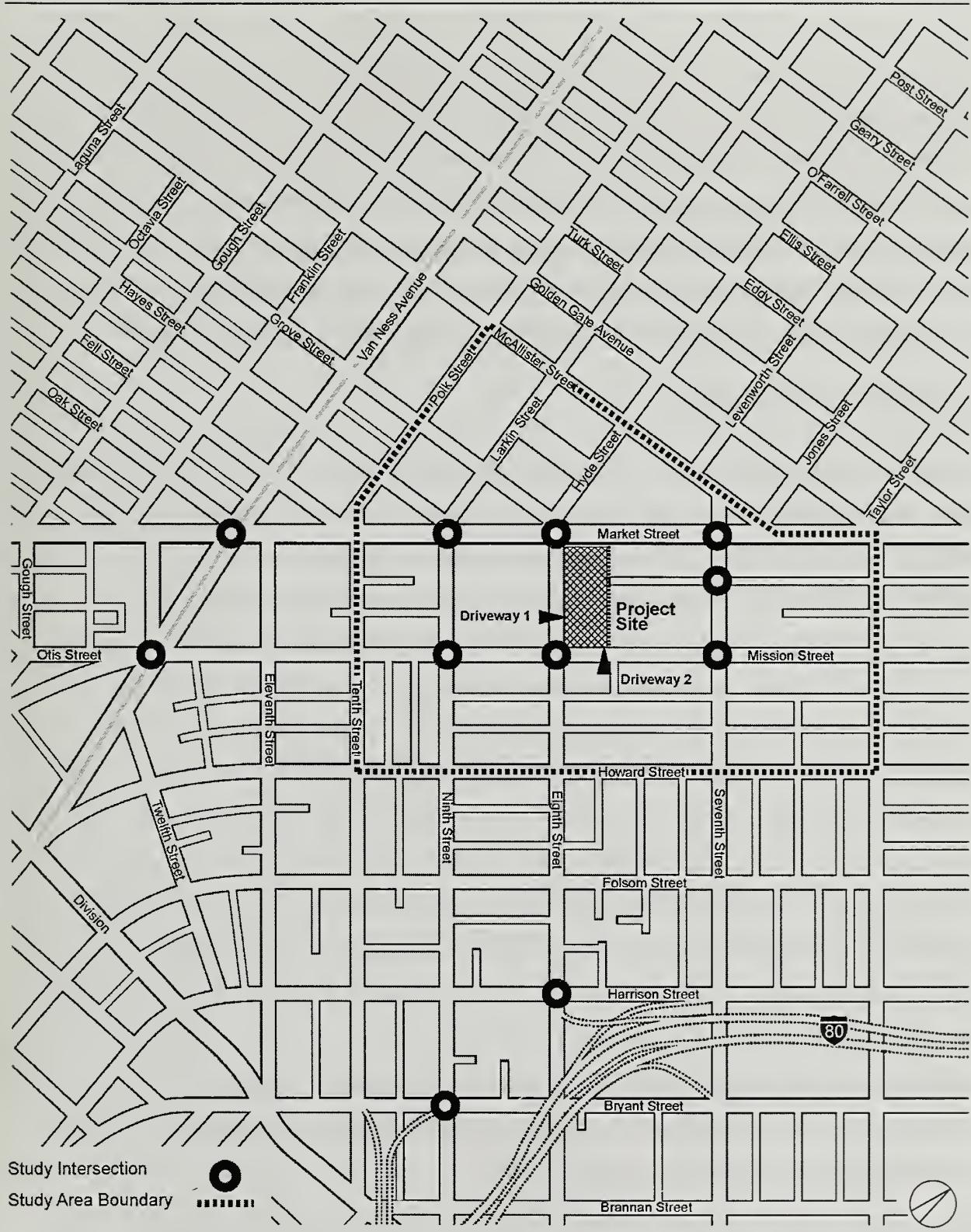
Regional Freeways

I-80 provides the primary regional access to the project site. This freeway is between Harrison Street and Bryant Street, approximately four blocks south of the project site. The San Francisco-Oakland Bay Bridge is part of I-80. Between the East Bay and the study area, the primary access point is via the I-80 westbound off-ramp at Eighth Street/Harrison Street. Access to I-80 eastbound is via the on-ramp at Eighth Street/Bryant Street. Between the South Bay and the project site, access to the site is via the I-80 eastbound off-ramp at the intersection of Seventh Street/Bryant Street and on-ramps at Tenth Street/Bryant Street and Seventh Street/Harrison Street. Refer to Figure 27 for the transportation study area.

I-280 connects the study area to the Peninsula and South Bay. I-280 and U.S. 101 intersect south of downtown San Francisco. I-280 is a six-lane highway that splits and terminates at two locations: Brannan Street/Sixth Street and King Street/Fifth Street, south of the project site. The primary access to and from the project site is via the Sixth Street on- and off- ramps.

U.S. 101 provides regional access to both the north and south of San Francisco. I-80 joins U.S. 101 to the southwest of the project area and provides access to the South Bay and the Peninsula. U.S. 101 connects San Francisco to the North Bay via Van Ness Avenue, Lombard Street, and the Golden Gate Bridge. Access to and from U.S. 101 southbound includes the on- and off-ramps at Seventh Street/Harrison Street, Seventh Street/Bryant Street, Tenth Street/Bryant Street, and Ninth Street/Bryant Street.

¹ This section is based on *1177 Market Street Transportation Study*, January 2006, prepared by CHS Consulting Group. This report is on file and available for public review by appointment at the Planning Department, 30 Van Ness Avenue, fourth floor.



1.27.06

Source: CHS Consulting Group

1177 Market Street Project

FIGURE 27: TRANSPORTATION STUDY AREA

During the evening commute hours, the on-ramps to the freeway system (I-80 eastbound to the Bay Bridge and I-80 westbound/U.S. 101 southbound to the Peninsula and South Bay) are currently congested. Queues typically develop due to high traffic volumes, traffic bottlenecks and occasional accidents. Queuing conditions at key intersections that provide direct access to the freeway on-ramps are likely to continue on weekdays between the hours of 4:00 p.m. to 7:00 p.m. These conditions affect the traffic flow on the major surface roadways near the freeways.²

Local Streets and Intersections

Market Street is a northeast-southwest roadway from The Embarcadero to Portola Drive in Twin Peaks. (While Market Street and Mission Street have a northeast-southwest alignment, by convention, the EIR refers to locations as north or south of Market Street, or east and west of Eighth Street or parallel streets.) This road has two lanes in each direction and 25- to 35-foot sidewalks. Left-turns are prohibited from Market Street between Drumm Street/Main Street and Franklin Street/Valencia Street. Market Street is designated as a Transit Preferential Street between Castro Street and Steuart Street in the San Francisco General Plan and is heavily used by transit vehicles. Between Steuart Street and Noe Street, Market Street has streetcar tracks running down the center lanes in both directions. There are bus-only lanes on Market Street between Van Ness Avenue and Fifth Street for inbound traffic and between Van Ness Avenue and Eighth Street for outbound traffic. Transit stops are located both at the curbside and at raised islands. The curbside stops are staggered from the island stops to avoid blocking traffic circulation. Market Street is also designated as a Neighborhood Pedestrian Street, and is part of the Citywide Pedestrian Network and the Citywide Bicycle Route Network. A Class II bicycle lane was recently implemented along Market Street between Eighth Street and Van Ness Avenue. Intermittent passenger loading and delivery zones are along both sides of Market Street. Parking is not permitted on Market Street in the study area.

Mission Street is a four-lane arterial that runs northeast-southwest between The Embarcadero and South Van Ness Avenue, and continues in a north-south direction west of South Van Ness

² San Francisco Department of Parking and Traffic, "Notes on Bay Bridge Evening Queues," July 1996.

Avenue. This road has 15-foot sidewalks on both sides of the street, except for a 12-foot sidewalk on the south side between Third Street and Fourth Street and a 10-foot sidewalk on the south side between Fourth Street and Fifth Street. Mission Street has narrow center lanes (9 feet wide). Mission Street connects the South of Market area to the Mission District and northern San Mateo County. Left turns from Mission Street are restricted between South Van Ness Avenue and Main Street eastbound, and between Tenth Street and Beale Street westbound. In the eastbound direction, Mission Street has a diamond lane between Eleventh Street and Fifth Street from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m., and between Fifth Street and Beale Street from 7:00 a.m. to 6:00 p.m. In the westbound direction, Mission Street has a diamond lane between Main Street and Fourth Street from 7:00 a.m. to 6:00 p.m. and between Fourth Street and Eleventh Street from 4:00 p.m. to 6:00 p.m. In the San Francisco General Plan, Mission Street is designated as a Neighborhood Pedestrian Street, a Transit Preferential Street, and as part of the Citywide Pedestrian Network. On-street, metered parking is provided along the north and south curbs, but is prohibited between 3:00 p.m. and 6:00 p.m. The peak period parking prohibition allows for additional capacity for right turning vehicles.

Stevenson Street is a 26-foot-wide, predominantly one-way street that runs discontinuously between First Street and Gough Street. Between Seventh Street and Eighth Street, Stevenson Street is a two-way street (from curb to curb line) with a 7-foot wide sidewalk on the north side of the street. However, there is no outlet to Eighth Street on this block; cars that enter on Seventh Street need to make a turn to exit to Seventh Street. There is no sidewalk on the south side of the street. Two-hour parking is allowed on the north side of the street and no parking is allowed on the south side.

Seventh Street runs between Market Street and Sixteenth Street. Seventh Street is two-way south of Brannan Street and one-way northbound from Brannan Street to Market Street. It forms a one-way couplet with Eighth Street. A bike lane runs on the east side of Seventh Street in the study area. Parking is prohibited at all times on the east side of the street between Market Street and Mission Street except for one yellow, metered loading space between Stevenson Street and Market Street. There is a bus platform on the north side of the Seventh Street at the intersection of Market Street. The San Francisco General Plan identifies Seventh Street as a Major Arterial and

Freight Traffic Route between Market Street and Bryant Street, a Secondary Arterial between Bryant Street and Sixteenth Street, and a Citywide Bicycle Route between Market Street and Sixteenth Street. Seventh Street is designated as a Neighborhood Pedestrian Street between Market Street and Howard Street. It is included in the Congestion Management Program (CMP) and Metropolitan Transportation System (MTS) networks.

Eighth Street runs between Market Street and Division Street and Townsend Street. Eighth Street is a one-way, four-lane southbound roadway from Market Street to Bryant Street. There are 10-foot sidewalks and on-street parking on both sides of the street. A bike lane runs the length of the street in the study area. The San Francisco General Plan identifies Eighth Street as a Major Arterial and a Freight Traffic Route between Market Street and Bryant Street, and a Neighborhood Pedestrian Street between Market Street and Mission Street. Eighth Street is a part of the CMP and MTS networks.

Hayes Street runs from Market Street and Larkin Street to Stanyan Street. It is a one-way westbound street from Market Street to Gough Street, with three to five lanes of traffic. West of Gough Street it has one traffic lane in each direction. In the project study area, Hayes Street has 12-foot sidewalks. Parking is not permitted on either side of the street from 4:00 p.m. to 7:00 p.m. between Larkin Street and Franklin Street, and on the south side from Franklin Street to Gough Street. The San Francisco General Plan identifies Hayes Street as a Major Arterial between Market Street and Gough Street, as a Neighborhood Pedestrian Street between Franklin Street and Buchanan Street, and as a Freight Traffic Route between Gough Street and Market Street. Hayes Street is included in the CMP network.

Intersection Level of Service Conditions

Traffic operating characteristics of intersections are described by the concept of level of service (LOS). LOS is a qualitative description of an intersection's performance based on the average delay per vehicle. Intersection LOS ranges from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. LOS A, B, C, and D are considered excellent to satisfactory service levels, while LOS E is undesirable and LOS F is unacceptable. A project resulting in LOS E or F

is considered to have a significant, adverse impact. Appendix C presents the LOS descriptions for signalized intersections.

Existing traffic conditions were evaluated for the weekday PM peak period with the PM peak hour being determined as 5:00 p.m. to 6:00 p.m. Traffic counts for the study intersections were obtained from the *1125 Market Street and 1160 Mission Street Projects Transportation Study*, the *55 Ninth Street Transportation Study*, and from new counts collected for the project transportation report. Traffic data used for this analysis were collected before the demolition of the Fell Street off-ramp. Before the completion of the new U.S. 101 off-ramp at Market Street and Octavia Street, traffic in the South of Market area increased, especially along Seventh Street and Ninth Street. With the opening of the Octavia Boulevard on- and off-ramps in September 2005, traffic volumes on Eighth Street, Ninth Street, and Tenth Street were expected to decrease as most of the vehicles expected to use this new route will come from these streets. Traffic volumes for the intersection of Ninth Street/Mission Street, collected for the from *Market & Octavia Plan EIR Transportation Study*, includes adjustments to reflect this expected decrease in volume. Other intersections analyzed based on existing volumes do not include any adjustment to reflect the expected decrease in traffic volumes on these streets. Traffic counts conducted since the opening of Octavia Boulevard show that changes in traffic volumes were consistent with the assumptions used in the *Market & Octavia Plan EIR*. Therefore, the analysis in this EIR is considered to represent conservative projections of traffic conditions, even with the opening of Octavia Boulevard connections to U.S. 101.

Table 5 presents the LOS and delay data for the study intersections. All of the study area intersections except Stevenson Street/Seventh Street are signalized. Table 5 shows that all of the signalized study intersections except Mission Street/South Van Ness Avenue currently operate at an acceptable LOS of D or better. The intersection of Mission Street/South Van Ness Avenue currently operates at LOS E with a delay of 77 seconds. The poor operating conditions at this intersection are due primarily to the high volumes in the southbound through movement on South Van Ness Avenue.

TABLE 5
INTERSECTION LEVEL OF SERVICE: EXISTING (2002)
WEEKDAY PM PEAK HOUR

Intersection	Control Type	Delay (sec./veh.) ¹	LOS
Market Street/Seventh Street	Signal	22.6	C
Market Street/Eighth Street	Signal	24.4	C
Market Street/Ninth Street	Signal	42.7	D
Market Street/Van Ness Avenue	Signal	26.1	C
Mission Street/Seventh Street ²	Signal	20.5/29.4	C/C
Mission Street/Eighth Street ²	Signal	48.8/53.4	D/D
Mission Street/Ninth Street ²	Signal	22.0/44.9	C/D
Mission Street/South Van Ness Avenue	Signal	77.0	E
Stevenson Street/Seventh Street ³	Two-way Stop	30.4/0.3 ³	D/A ³
Eighth Street/Harrison Street	Signal	22.2	C
Ninth Street/Bryant Street	Signal	33.3	C
Driveway 1 (Eighth Street near Market Street) ³	Two-way Stop	14.3/0.6 ³	B/A ³
Driveway 2 (Eighth Street near Mission Street)	--	--	--
Driveway 3 (Mission Street)	--	--	--

Source: CHS Consulting Group, 2005.

Notes:

¹ Delay values are not actually measured in the field, but are estimated based on calculations of existing traffic volumes.

² Mission Street intersections are shown without and with full enforcement of the existing bus-only lane in both directions of Mission Street.

³ Stevenson Street/Seventh Street and Driveway 1 are stop-sign controlled intersections, so delays and LOS are shown for both the worst approach and average for the entire intersection (worst approach/average for the intersection).

The intersection of Stevenson Street/Seventh Street is controlled by a stop sign in the east-west approaches on Stevenson Street. The uncontrolled approach is generally free flowing, but the westbound approach operates at LOS D with a delay of 30.4 seconds. This delay is due primarily to cars having to wait for a gap to enter or cross through traffic on Seventh Street. Observations made during the PM peak hour showed that queues in the northbound approach at the intersection of Market Street/Seventh Street often extend past the Stevenson Street/Seventh Street intersection (which is approximately 210 feet south of Market Street). When queues occur, it difficult for cars to enter the stream of through traffic on Seventh Street from either eastbound or westbound Stevenson Street.

The intersections on Mission Street were analyzed with and without enforcement of the existing bus-only lane. Observations showed that although the bus lanes on Mission Street are clearly

striped and signed for buses only, some cars still use them as a normal travel lane. For the non-enforcement scenario, adjustments to the Mission Street analysis were made to reflect the current operating conditions. If the bus-only lane is assumed to be fully enforced, the LOS and delays at intersections on Mission Street would be worse but still acceptable.

TRANSIT CONDITIONS

Regional Transit Systems

The Bay Area Rapid Transit District (BART) operates regional rail transit service between the East Bay (from Pittsburg/Bay Point, Richmond, Dublin/Pleasanton, and Fremont) and San Francisco, and between northern San Mateo County (Daly City, San Francisco International Airport and Millbrae) and San Francisco. Within downtown San Francisco, BART operates underground below Market Street. The closest station to the project site is the Civic Center Station, with entrance directly adjacent to the project site. During the PM peak period, headways are generally 5 to 15 minutes for each line. According to recent ridership data, BART carries approximately 307,000 passengers per day, system-wide. In downtown San Francisco there are approximately 23,000 peak-hour entrances between 5:00 p.m. and 6:00 p.m.

The Peninsula Commute Service (Caltrain) provides rail passenger service on the Peninsula between Gilroy and San Francisco. The service is operated by the Peninsula Corridor Joint Powers Board (JPB), a joint powers agency consisting of San Francisco, San Mateo, and Santa Clara counties. The San Francisco terminal is located at Fourth Street and Townsend Street, approximately nine blocks southeast of the project site. Caltrain currently operates 76 trains each weekday, with a combination of express and local service. Caltrain ridership was most recently estimated to be approximately 26,000 riders per day (year to date through May 2004).

The San Mateo County Transit District (SamTrans) provides bus service between San Mateo County and San Francisco. SamTrans operates 12 bus lines that serve San Francisco, including nine routes into the downtown area. Nine of these routes operate as peak-only commute routes, one route operates as an express route, and two routes provide service throughout the day. SamTrans does not provide local service in the study area. SamTrans ridership throughout the

system totals approximately 48,000 passengers per day (April 2004). The closest SamTrans bus stop to the project site is located at Seventh Street and Mission Street, where lines DX, KX, NX, RX, PX, TX, 391, 397, and 292 make stops. Headways during the PM peak period are approximately 20 to 30 minutes per line.

Golden Gate Transit, operated by the Golden Gate Bridge, Highway, and Transportation District (GGBHTD), provides bus service between the North Bay (Marin and Sonoma counties) and San Francisco. Golden Gate Transit operates 22 commuter bus routes, 9 basic bus routes, and 16 ferry feeder bus routes. Most routes serve either the Civic Center (via Van Ness Avenue, Golden Gate Avenue/Eighth Street, Seventh Street/McAllister Street, and Mission Street) or the Financial District (via Battery Street and Sansome Street). Basic bus routes operate at 15 to 90 minutes intervals, depending on the time and day of the week. Commute and ferry feeder bus routes operate at more frequent intervals in the mornings and evenings. Golden Gate Transit does not provide local service within San Francisco. On buses from the North Bay to San Francisco, beyond the Golden Gate Bridge toll booth and Richardson Transfer Center, only alighting is allowed at stops within San Francisco. Conversely, on buses from San Francisco to the North Bay, boardings are allowed only at stops within San Francisco. Golden Gate Transit carries approximately 6,700 passengers per day to and from San Francisco. In the study area, Golden Gate Transit buses can be boarded on Mission Street and Seventh Streets (outbound only), a major transfer point, and disembarked on Mission Street and Eighth Street (inbound only).

Golden Gate Transit also provides ferry service between the North Bay and San Francisco. During the AM and PM peak periods, ferries are operated between Larkspur and San Francisco and between Sausalito and San Francisco. The San Francisco terminal is located at the Ferry Building, on The Embarcadero at Market Street. Approximately 1,400 passengers ride the ferry to Larkspur and approximately 340 passengers ride the ferry to Sausalito during the PM peak hour. The Ferry Building is accessible by transit (on various MUNI lines on Market Street).

The Alameda-Contra Costa Transit District (AC Transit) provides local bus service in the East Bay (western Alameda and Contra Costa Counties). In addition, AC Transit operates bus service between the East Bay and San Francisco. All transbay routes terminate at the Transbay Terminal,

located on Mission Street between First and Fremont Streets, eight blocks from the project site. Most transbay service is peak hour and peak direction (to San Francisco during the AM peak period and from San Francisco during the PM peak period), with headways of 15 to 30 minutes per route. AC Transit has an average daily transbay ridership of approximately 12,000 passengers.

Existing Regional Transit Screenline Analysis and Transit Operator Level of Service

A screenline analysis was performed for regional transit carriers (BART, AC Transit, SamTrans, Caltrain, and Golden Gate Transit), to determine the current service volumes and capacity. Three screenlines have been established around San Francisco to analyze potential impacts of the proposed project on the regional transit carriers. The locations of the screenlines and transit providers that cross each screenline are as follows:

- East Bay: San Francisco Bay, including the Bay Bridge (AC Transit, BART, ferries)
- North Bay: San Francisco Bay, including the Golden Gate Bridge (buses and ferries)
- South Bay: San Francisco-San Mateo County line (BART, Caltrain, SamTrans)

Available space for each regional transit provider can be determined using the concept of capacity utilization, which relates the number of passengers per transit vehicle to the capacity of the vehicle. The capacity is based on the number of seated passengers per vehicle. All of the regional transit operators, except BART, have a load factor standard of 1.0, which means that all seats are full. BART has a performance standard of 135 percent, which means that all seats are full and the number of standees corresponds to 35 percent of the seating capacity (calculated as 1.35 passengers per seat).

Over 31,000 trips currently cross the three regional screenlines. More than half (69 percent) of all regional transit trips cross the East Bay screenline, with approximately 82 percent of these trips on BART. Approximately 3,890 trips cross the North Bay screenline, mostly on the Golden Gate Transit buses. Approximately 5,840 trips cross the South Bay screenline, with approximately 54 percent of these trips on BART. All regional transit providers currently operate at less than their design capacity, which indicates that seats are generally available.

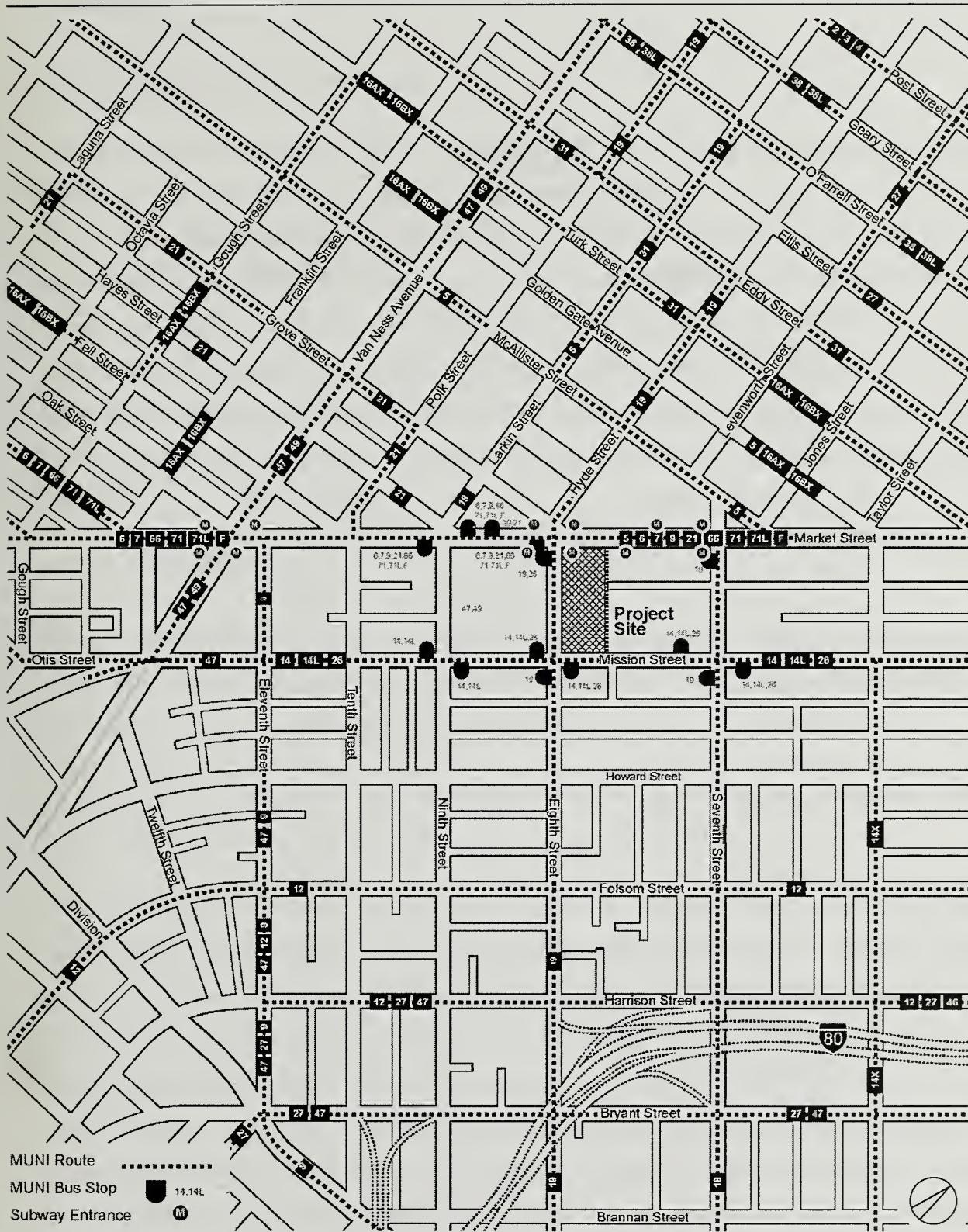
San Francisco Municipal Railway (MUNI)

- MUNI lines serving the proposed project study area are described below. Figure 28 shows the existing MUNI routes and stop locations. Table 6 shows MUNI transit lines within the study area and PM peak-period service frequency.

Existing MUNI Screenline Analysis and Transit Operator Level of Service

MUNI has designated four screenlines in San Francisco to analyze potential impacts of the proposed project on MUNI service: the northeast screenline, the northwest screenline, the southeast screenline, and the southwest screenline, with sub-corridors within each screenline. The bus and LRV lines used in this screenline analysis are considered the major commute routes from the downtown area. Other bus lines, such as “policy” lines and lines with greater than 10 minute headways are not included, due to their generally lower ridership.

Available space on each MUNI line can be determined using the concept of capacity utilization, which relates the number of passengers per transit vehicle to the design capacity of the vehicle. In contrast to other transit operators, MUNI has established a capacity utilization service standard which includes seating capacity and a substantial number of standees, with standees representing somewhere between 30 to 80 percent of seated passengers, depending upon the specific transit vehicle. Thus, MUNI screenlines and sub-corridors at or near capacity operate under noticeably crowded conditions with many standees. Because each screenline and most sub-corridors include several MUNI lines with multiple transit vehicles from each line, some individual transit vehicles operate at or above capacity and are extremely crowded during the PM peak hour at their most heavily used points while others operate under less crowded conditions. The extent of crowding is accentuated whenever targeted headways are not met either because of missed runs and /or bunching in service. Thus, transit operators may experience substantial problems in service delivery well short of established service capacity standards.



1-27-06

Source: CHS Consulting Group

1177 Market Street Project

FIGURE 28: MUNI ROUTES AND STOP LOCATIONS

TABLE 6
MUNI TRANSIT LINES

Route	PM Peak Frequency (minutes)
5 - Fulton	5
6 - Parnassus	10
7 - Haight	15
9 - San Bruno	8
14 - Mission	6
14L - Mission Limited	Midday Only
16AX - Noriega "A" Express	15
16BX - Noriega "B" Express	15
19 - Polk	10
21 - Hayes	7
26 - Valencia	20
27 - Bryant	12
31 - Balboa	10
47 - Van Ness	8
49 - Van Ness - Mission	8
66 - Quintara ¹	20
71 - Haight - Noriega	10
71L - Haight - Noriega Limited	10
F - Market (Trolley)	7
J - Church (Metro)	9
K - Ingleside (Metro)	9
L - Taraval (Metro)	7
M - Ocean View (Metro)	9
N - Embarcadero (Metro)	7
S - Castro Street Shuttle (Metro)	12

Source: MUNI

Notes:

1. Line 66 runs only during PM peak periods beyond 9th Avenue and Judah.

PEDESTRIAN CONDITIONS

Pedestrian traffic on Stevenson Street is extremely light and can be accommodated by the 7-foot sidewalk on the north side of the street. There is no sidewalk on the south side of Stevenson Street. Market Street experiences relatively heavier pedestrian volumes than other streets in the study area (due to the greater concentration of commercial uses and the BART station entrances), but also has substantially wider sidewalks (up to 35 feet wide) that accommodate the heavier volumes without resulting in pedestrian congestion. Delivery vehicles occasionally park on the sidewalk of Market Street, creating temporary obstacles for pedestrians, but in general they do not restrict pedestrian flow. On Seventh Street, pedestrian volumes are light and generally free flowing.

BICYCLE CONDITIONS

There are several bike routes and lanes within the study area. Generally, bicycle volumes are low in the study area, except on Market Street and Mission Street, which are used by couriers and commuters traveling to and from the downtown area.

The *Official San Francisco Bike Route System* lists the following bicycle routes, which are located in the vicinity of the project area:

Route 19 connects China Basin and the Caltrain Depot with Market Street. It traverses Fourth Street south of Townsend Street, and Fifth Street north of Townsend Street. It terminates at Fifth and Market Streets. Bicyclists on Route 19 must share the roadway with other vehicles; on Townsend Street and Fourth Street, the route is wide enough for bicyclists to travel outside the path of other vehicles. There is currently a proposal by the Bicycle Coalition to add a bike lane on Fifth Street for this route. A preliminary concept plan has been developed by CHS Consulting Group at the request of the Planning Department and DPT. The plan evaluates potential geometric changes that could accommodate a Class II bike lane in each direction on Fifth Street. No traffic impact analysis has been conducted for this proposal and no funding or approval has been granted.

Route 20 connects the Civic Center with the University of San Francisco (USF) and the Richmond District. It traverses Cabrillo Avenue, Turk Street through the USF campus, and forms a couplet with McAllister Street and Grove Street. In the vicinity of the project area, bicyclists traveling westbound on McAllister Street must share the roadway with other vehicles; eastbound bicyclists on Grove Street have a designated bike lane at the roadway edge.

Route 23 connects northwestern Potrero Hill with South of Market area and Market Street. It traverses the Seventh Street and Eighth Street couplet, runs on Mississippi Street to Mariposa Street, and terminates at Third Street. In the vicinity of the project area, Route 23 is a designated bike lane at the roadway edge.

Route 25 connects the Bayview Hunters Point area with Potrero Hill, Civic Center, Nob Hill, Russian Hill, and Aquatic Park. It parallels U.S. 101 on Bayshore Boulevard and Loomis Boulevard. At the intersection of U.S. 101 and Cesar Chavez Street, Route 25 emerges onto Potrero Avenue and continues north to Seventeenth Street. Route 25 continues north to Aquatic Park via Harrison Street, Eleventh Street, and Polk Street. On Harrison Street north of Seventeenth Street, Eleventh Street south of Mission Street, Polk Street between Market Street and Beach Street (except between Post Street and Union Street), Route 25 is a designated bike lane on the roadway edge. On all other sections of this route, bicyclists must share the roadway with other vehicles.

Route 30 connects Downtown with Golden Gate Park. It runs the length of Golden Gate Park and the Panhandle, with a route to Duboce Avenue to South of Market on Fourteenth Street, uses a couplet with Folsom Street and Howard Street to The Embarcadero. DPT recently completed the installation of a Class II bike lane on the north side of Howard Street between Fremont Street and Eleventh Street. There is a break in the bike lane for about 200 feet approaching Ninth Street to allow for the double right turn lanes at Howard Street/Ninth Street intersection. On Folsom Street, Route 30 has a dedicated bike lane on the south side of the street.

Route 50 connects Downtown with the southern Sunset District. It runs on Sloat Boulevard from the Great Highway to Junipero Serra Boulevard, and continues east on Portola Boulevard, passes through Twin Peaks tunnel, and traverses Market Street to terminate at The Embarcadero. A bike

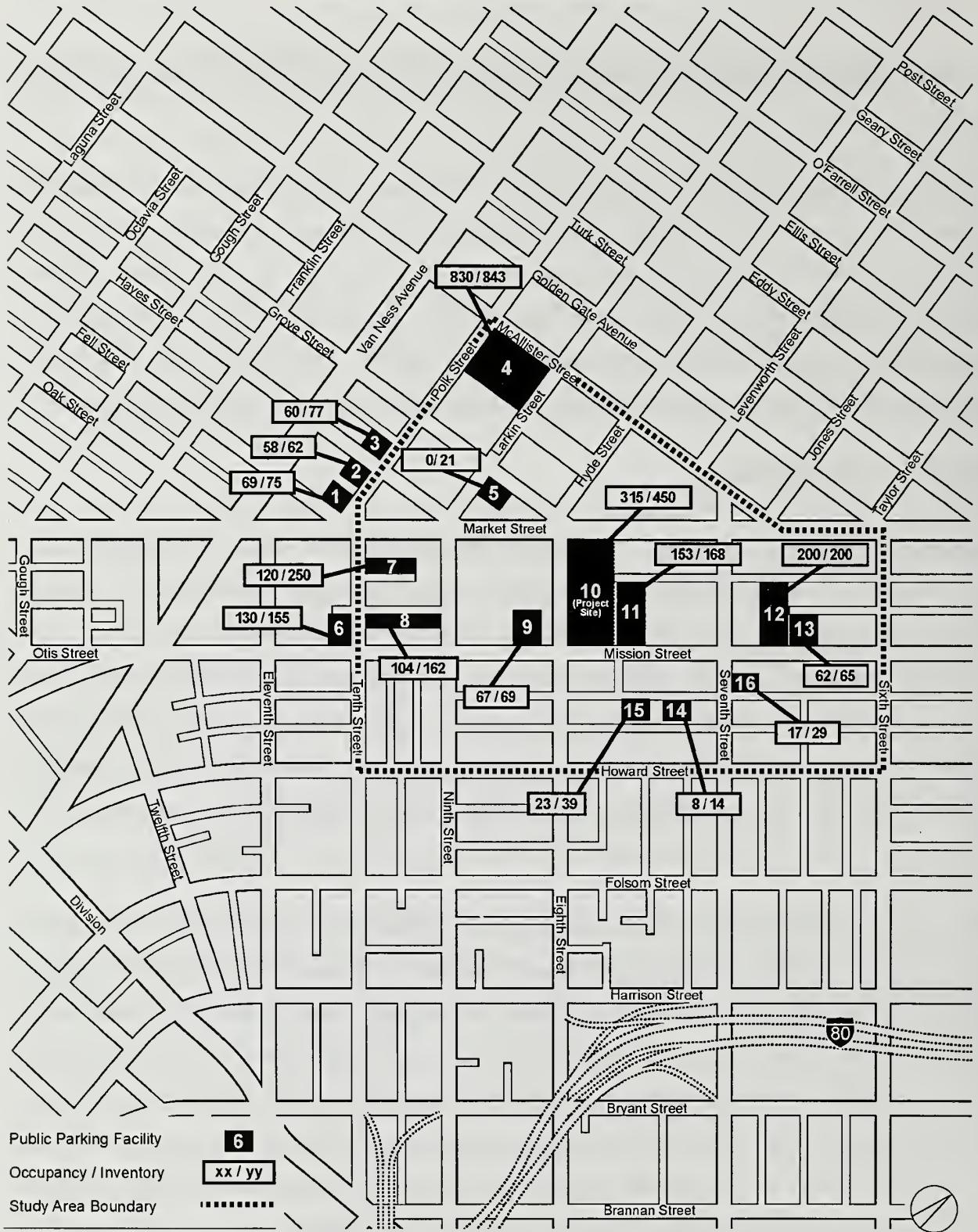
lane has recently been implemented along Market Street between Van Ness Avenue and Eighth Streets.

Although no bicycle counts were conducted, field observations indicated that bicycle volumes in the area are relatively low to moderate. Bicycle traffic is heavier on Market Street than other study area streets. On sections of Market Street where there is no dedicated bike lane, cyclists must share the right-of-way with buses and other vehicles. In stretches where lanes are narrow, cyclists may have to slow down to avoid buses or other vehicles. Other conflicts occur between vehicles and bicycles, especially where double parking causes a blockage of existing bicycle lanes.

PARKING CONDITIONS

Existing weekday midday (1:30 p.m. to 3:30 p.m.) off-street parking conditions in the study area were obtained from the *1125 Market and 1160 Mission Street Projects Transportation Study* and the *55 Ninth Street Transportation Study*. For facilities not included in these two reports, new midday (1:30 p.m. to 3:30 p.m.) counts were conducted. Existing weekday evening (6:30 p.m. to 8:00 p.m.) off-street parking conditions were also surveyed. Existing weekday midday and evening on-street parking inventory and occupancy were not counted. Instead, general observations showed on-street parking were generally full during the weekday midday peak period (1:30 p.m. to 3:30 p.m.) and the weekday evening period (6:30 p.m. to 8:00 p.m.).

There are 16 public, off-street parking facilities in the study area with a total of 2,679 spaces. Fourteen parking facilities are open during the evening hours. Figure 29 shows existing off-street parking facilities in the project vicinity. During the weekday midday peak period, the overall parking occupancy rate of these off-street parking facilities is approximately 83 percent, or near effective capacity. A parking facility is considered to be effectively full when it reaches an 85 percent occupancy level. Above an 85 percent occupancy level, there are parking spaces available, but people often have to circle around to find a space. Parking facilities north of Market Street operate with less available capacity (96 percent occupancy) than facilities south of Market Street (75 percent occupancy). However, parking facilities south of Market Street may be considered more convenient to the project site than facilities north of Market Street as people do not have to cross Market Street.



1-27 06

Source: CHS Consulting Group

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FIGURE 29: OFF-STREET PARKING LOCATIONS

There are 450 parking spaces at the existing Trinity Plaza Apartments. Of this total, 77 are leased to residents, 52 are used by property management staff, and 71 are leased on a monthly basis to the City of San Francisco and other outside users. The remaining 250 spaces are available for hourly or daily use. None of the spaces are reserved; all are generally available on a first-come first-serve basis.

During the weekday evening period, observations showed that off-street parking facilities in the area generally have available spaces. A survey conducted on Wednesday, August 29, 2005 showed that the off-street parking occupancy rate in the study area was approximately 29 percent during the weekday evening period. Facilities south of Market Street operate at approximately 28 percent occupancy and facilities north of Market Street operate at approximately 30 percent occupancy during weekday evenings. All the off-street parking facilities surveyed, except the SF Mart Garage and Best Western Hotel are open at night.

LOADING CONDITIONS

The existing loading patterns were observed and informal interviews with employees of several businesses in the vicinity of the proposed project were conducted as part of the *1125 Market/1160 Mission Street Project Environmental Transportation Report*.³ For businesses fronting Market Street between Seventh Street and Eighth Street, deliveries are made as follows:

- Deliveries to businesses inside the Oddfellows Building (26 Seventh Street) fronting Market Street are carted into the lobby of the building through an entrance on Seventh Street. They are then taken by elevator to the basement of the building, where they are distributed to the respective tenants. Trucks making these deliveries typically park in the yellow curb loading space on Seventh Street.
- Trucks making deliveries to businesses fronting Market Street, east of the 1145 Market Street building, typically park on the southern sidewalk of Market Street or sometimes park in the Market Street curb lane. Goods are then hand trucked to their respective destinations.
- Very few delivery vehicles were observed to have parked along Stevenson Street making deliveries.

³ The *1125 Market/1160 Mission Street Projects Transportation Report* is on file and available for public review by appointment at the Planning Department, 30 Van Ness Avenue, fourth floor.

There is a 70-foot long recessed loading bay on the south side of Market Street just east of Eighth Street fronting the project site. Observations showed that vehicles using the loading bay tend to park for longer than the posted 30-minute limit.

The two buildings at 1145 Market Street and 1155 Market Street, east of the project site, have off-street loading facilities on Stevenson Street. However, observations indicated that delivery vehicles serving these buildings sometimes park illegally on Market Street (both in the street and on the sidewalk) and hand-truck their goods to the front entrance instead of using the off-street loading facilities on Stevenson Street. This probably occurs because it is more convenient for drivers to park for a short time on the sidewalk than to drive around to Stevenson Street. Truck deliveries to these two buildings also use Stevenson Street for access.

The existing Trinity Plaza Apartments has an off-street loading area to which all deliveries are made on-site, accessed primarily from the Eighth Street.

Illegal truck parking on the sidewalk and on Market Street occurs sporadically throughout the day. While the illegal parking does not restrict either pedestrian flow (because of the wide sidewalks on Market Street) or traffic on Market Street between Seventh Street and Eighth Street, it does create obstacles for pedestrians, which can raise safety concerns, and can slow bus traffic in the curb lane of eastbound Market Street when a truck and a bus are in the lane simultaneously.

IMPACTS

SIGNIFICANCE CRITERIA

The following are the significance criteria established by the Planning Department for the determination of impacts associated with a proposed project:

- The operational impacts on signalized intersections are considered significant if project-related traffic causes the level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The operational impacts on unsignalized intersections are considered potentially significant if project-related traffic causes the level of service at the worst approach to deteriorate from LOS D or better to LOS E or F and Caltrans signal warrants would be met, or causes Caltrans signal warrants to be met when the worst approach is already at LOS E or F. The project may result in significant adverse impacts

at intersections that operate at LOS E or F under existing conditions depending upon the magnitude of the project's contribution to the worsening of delay. In addition, the project would have a significant adverse effect if it would cause major traffic hazards, or would contribute considerably to the cumulative traffic increases that would cause the deterioration in levels of service to unacceptable levels.

- San Francisco does not consider parking supply as part of the permanent physical environment. Parking conditions are not static, as parking supply and demand varies from day-to-day, from day to night, from month-to-month, etc. Hence, the availability of parking spaces (or lack thereof) is not permanent physical condition, but changes over time as people change their modes and patterns of travel.

Parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that could be triggered by a social impact (CEQA Guidelines § 15131 (a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service particular would be in keeping with the City's "Transit First" policy. The City's Transit First Policy established in the City's Chapter Section 16.102 provides the "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The transportation analysis accounts for potential secondary effects, such as cars circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is available. Moreover, the secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the proposed project would be minor, and the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise and pedestrian safety analyses, reasonably addresses potential secondary effects.

- The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in operating delay or costs such that significant adverse impacts in transit service levels could result. With the MUNI and regional transit screenlines analyses, the project would

have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the weekday PM peak hour.

- The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.
- The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.
- The project would have a significant effect on the environment if it would result in a loading demand during the peak hour of loading activities that could not be accommodated within the proposed on-site loading supply or within on-street loading zones, and if it would create potentially hazardous traffic conditions.
- Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

TRIP GENERATION

Trip generation for the proposed project was calculated based on the proposed floor area or number of units. Table 7 summarizes the person-trip generation for the proposed project. Person-trips were estimated based on the trip generation rates obtained from the *SF Guidelines*. Table 7 shows that the proposed project would generate approximately 23,850 total daily person-trips and 3,437 PM peak-hour person-trips. The existing uses on-site currently generate about 3,000 daily and 513 PM peak-hour person-trips. The proposed project would thus generate approximately 20,844 net new daily person-trips and 2,924 net new PM peak-hour person-trips. These net new person-trips were assigned to different transportation modes to determine the number of auto, transit, walk and other trips to and from the site. Table 8 shows the net new PM peak-hour person-trips to and from the proposed project by mode.

Table 9 presents the estimated net new daily and PM peak hour vehicle-trips for the proposed project. As shown in the table, the residential and retail uses would generate approximately 441 net new weekday PM peak-hour vehicle-trips, of which 263 would be inbound to the site and 178 would be outbound from the site.

TABLE 7
PROJECT PERSON-TRIPS

Land Use	Residential Units	GSF	Daily Trip Rate ¹	Daily Person-Trips	PM Peak Hr Percentage	PM Peak Hr Person-Trips
Proposed Project						
Retail		48,000	150	7,200	9%	648
Restaurant		12,000	200	2,400	13.5%	324
Residential (Studio/1-bdrm)	1,900		7.5	14,250	17.3%	2,465
Total	1,900	60,000	--	23,850	--	3,437
Existing Site						
Restaurant		12,500	N.A.	178 ³		24 ²
Residential (Studio/1-bdrm)	377	--	7.5	2,828	17.3	489
Total	377	12,500	--	3,006	--	513
Net New						
Retail				7,200		648
Restaurant				2,222		300
Residential				11,422		1,976
Total				20,844		2,924

Source: CHS Consulting Group, 2005.

Notes:

1. Trips per 1,000 gsf unless otherwise noted. Trip generation rates and the PM peak percentages for the proposed land uses were obtained from the SF Guidelines and from the San Francisco City Planning Department.
2. Existing restaurant PM peak-hour person-trips were obtained from a field survey conducted on June 29, 2005. Existing restaurant daily person-trips were estimated by assuming 13.5% of daily trips would occur during the PM peak hour

TABLE 8
NET NEW PM PEAK-HOUR PERSON-TRIPS BY MODE

Land Use	Auto	Transit	Walk	Other	Total
Retail	184	110	279	74	647
Restaurant	86	51	130	34	301
Residential	395	731	632	218	1,976
Total	665	892	1,041	326	2,924

Source: CHS Consulting Group, 2005.

TABLE 9
NET NEW VEHICLE-TRIP GENERATION

Land Use	PM Peak-Hour Vehicle-Trips ¹	Inbound Trips	Outbound Trips
Retail	106	50	56
Restaurant	49	23	26
Residential	286	190	96
Total	441	263	178

Source: CHS Consulting Group, 2005.

Notes:

- 1 PM vehicle-trip generation and inbound outbound split based on rates provided in the SF Guidelines and the 2000 U.S. Census.

TRAFFIC IMPACTS

Vehicle-trips currently generated by the existing parking facility at the project site were not deducted for this analysis. Instead, they were assumed to remain after the completion of the proposed project for a conservative analysis.

Table 10 presents the results of the intersection LOS analysis for the existing (2002), existing plus project, and future cumulative (2020) scenarios. The LOS analysis includes adjustments to the Mission Street and Market Street intersections to reflect their narrow lane widths and bus/streetcar stop locations.

Under the existing plus project conditions, all of the study intersections that currently operate at LOS D or better are expected to continue operating at LOS D or better with no significant changes

to the delays at any of the intersections except for Mission Street/Eighth Street with full compliance of bus-only lane condition. The intersection of Mission Street/South Van Ness Avenue would continue to operate at LOS E.

TABLE 10
INTERSECTION LEVEL OF SERVICE:
EXISTING, EXISTING + PROJECT, AND FUTURE CUMULATIVE

Intersection	Existing (2002)		Existing + Project		Future Cumulative (2020)	
	Delay	LOS	Delay	LOS	Delay	LOS
Market Street/Seventh Street	22.6	C	22.8	C	39.8	D
Market Street/Eighth Street	24.4	C	32.5	C	39.0	D
Market Street/Ninth Street	42.7	D	43.3	D	42.9	D
Market Street/Van Ness Avenue	26.1	C	26.3	C	59.4	E
Mission Street/Seventh Street ¹	20.5 / 29.4	C / C	21.8 / 37.1	C / C	35.1/66.8	D/E
Mission Street/Eighth Street ¹	48.8 / 53.4	D / D	54.7 / 60.5	D / E	>80/>80	F/F
Mission Street/Ninth Street ¹	22.0 / 44.9	C / D	23.6 / 46.5	C / D	52.8/>80	D/F
Mission Street/South Van Ness Avenue	77.0	E	77.2	E	>80	F
Stevenson Street/Seventh Street ²	30.4 / 0.3	D / A	30.8 / 0.5	D / A	46.5/1.3 ²	E/A ²
Eighth Street/Harrison Street	22.2	C	22.4	C	24.0	C
Ninth Street/Bryant Street	33.3	C	34.9	C	45.2	D
Driveway 1 ² (Eighth Street near Mission Street)	--	--	25.6 / 1.5	D / A	29.7/1.5 ²	D/A ²
Driveway 2 ² (Mission Street)	--	--	11.0 / 0.2	B / A	11.9/0.2 ²	B/A ²

Source: CHS Consulting Group, 2005.

Notes:

1. Shows LOS conditions under typical operating conditions and with full compliance with the bus-only lane.
2. Two-way stop-sign controlled intersections, delays and LOS are shown for both the worst approach and average for the entire intersection (worst approach/average for the entire intersection).

At the intersection of Mission Street/South Van Ness Avenue, the proposed project would contribute a small number of cars (approximately four cars during PM peak hour, or less than one percent of the intersection's total volume under existing plus project conditions) and would therefore not be considered to have a significant impact on the LOS E conditions of that

intersection. The intersection of Mission Street/Eighth Street would operate at LOS D without enforcement of the bus lane. However, this intersection would operate at LOS E with enforcement of the bus lane on Mission Street (average delay of 60.5 seconds). It should be noted that the City does not consider conditions under full compliance with the bus-only lane as a basis for determining significant impact. The LOS conditions with compliance with the transit line shown in Table 10 are for information purposes only.

At the Eighth Street/Market Street intersection, vehicles driving east on Grove Street would have to cross within a short distance to be able to turn into the project parking entrance on Eighth Street. With vehicles also crossing Market Street south from Hyde Street, it would be difficult to change lanes and access the site during peak hours when the volume on Eighth Street is high.

TRANSIT IMPACTS

The project would generate approximately 892 weekday PM peak-hour transit trips. Of the 892 transit trips, 556 would be inbound and 336 would be outbound. The high number of inbound trips can be attributed to residents returning home during the PM peak hour. Transit trips would be spread over 29 MUNI bus lines, BART, SamTrans, Caltrain, AC Transit, and Golden Gate Transit. It should be noted that all outbound trips would not necessarily cross a screenline, but all would have an effect on the capacity within the screenline. For this analysis, a conservative assumption was made in calculating the capacity utilization by assuming that all outbound trips would cross a screenline. It is estimated that 271 trips would cross the MUNI screenline and 65 trips would cross the regional transit screenline.

As there is generally ample capacity in the inbound direction during the PM peak hour, only outbound trips were added to the transit screenlines to estimate the project's potential effects on transit capacity.

As indicated in Table 11, there is available capacity on MUNI to accommodate the additional transit trips from the proposed project. With the estimated increase in transit ridership by the proposed project, all MUNI screenlines would continue to operate with available capacity.

TABLE 11
MUNI SCREENLINE ANALYSIS – EXISTING-PLUS-PROJECT,
PM PEAK-HOUR CONDITIONS

Screenline	Existing Ridership	Project Trips	Existing plus Project Ridership	Capacity	Capacity Utilization
Northeast Screenline					
Kearny/Stockton Corridor	2,217	106	2,323	2,611	89%
All Other Lines	<u>946</u>	<u>10</u> <u>6</u>	<u>1,052</u>	<u>1,706</u>	<u>62%</u>
<i>Subtotal</i>	<i>3,163</i>	<i>212</i>	<i>3,375</i>	<i>4,317</i>	<i>86%</i>
Northwest Screenline					
Geary Corridor	2,509	15	2,524	2,942	86%
All Other Lines	<u>5,956</u>	<u>5</u>	<u>5,961</u>	<u>6,989</u>	<u>85%</u>
<i>Subtotal</i>	<i>8,465</i>	<i>20</i>	<i>8,485</i>	<i>9,931</i>	<i>85%</i>
Southeast Screenline					
Third Street Corridor	424	12	436	595	73%
Mission Corridor	1,168	12	1,180	1,325	89%
All Other Lines	<u>1,982</u>	<u>0</u>	<u>1,982</u>	<u>2,170</u>	<u>91%</u>
<i>Subtotal</i>	<i>3,575</i>	<i>24</i>	<i>3,598</i>	<i>4,090</i>	<i>88%</i>
Southwest Screenline					
Subway Lines	5,259	12	5,271	5,891	89%
All Other Lines	<u>1,409</u>	<u>4</u>	<u>1,413</u>	<u>1,830</u>	<u>77%</u>
<i>Subtotal</i>	<i>6,667</i>	<i>16</i>	<i>6,683</i>	<i>7,721</i>	<i>87%</i>
ALL SCREENLINES	21,870	272	22,141	26,060	85%

Source: CHS Consulting, 2005, and *SF Guidelines*, October 2002.

Note: Totals may not add up due to rounding.

Transit trips bound for the East Bay, North Bay, South Bay, and other areas were assigned to regional transit screenlines. Table 12 shows the screenline analysis for regional transit providers. It shows that there is available capacity to accommodate the additional transit trips generated by the proposed project (BART use capacity factor of 135 percent of seated space).

TABLE 12
REGIONAL PROVIDER SCREENLINE ANALYSIS -
PROJECT RIDERSHIP AND CAPACITY UTILIZATION

Transit Provider	Ridership	Project Ridership	Existing-Plus-Project Ridership	Capacity ¹	Capacity Utilization
East Bay					
BART	17,537	18	17,555	14,560	121%
AC Transit	3,143	9	3,152	4,896	64%
Ferry	646	0	646	1,629	40%
<i>Subtotal</i>	<i>21,326</i>	<i>27</i>	<i>21,353</i>	<i>21,085</i>	<i>101%</i>
North Bay					
GGT buses	3,132	14	3,146	5,339	59%
GGT ferries	755	5	760	2,410	32%
<i>Subtotal</i>	<i>3,886</i>	<i>19</i>	<i>3,906</i>	<i>7,749</i>	<i>50%</i>
South Bay					
BART	3,157	12	3,169	10,360	31%
Caltrain	1,900	3	1,903	2,900	66%
SamTrans	785	3	788	1,083	73%
<i>Subtotal</i>	<i>5,842</i>	<i>18</i>	<i>5,860</i>	<i>14,343</i>	<i>41%</i>
Total	31,055	65	31,120	43,177	72%

Source: CHS Consulting, 2005, and SF Guidelines, October 2002.

Notes:

1. Capacity based on the number of seats per transit vehicle.

Totals may not add up due to rounding.

PEDESTRIAN IMPACTS

During the weekday PM peak hour, the project would generate a total of 1,933 new pedestrian trips (892 trips to transit, 1,041 walk-only trips). Due to the high concentration of transit services in the study area, the transit-related pedestrian trips would likely occur within a block or two of the project site. Most of these pedestrian trips would occur on Market Street since the main pedestrian entrances to the retail and residential uses as well as to BART, MUNI, and MUNI Metro are all concentrated on Market Street. Market Street has very wide sidewalks (33 to 35 feet) and would be able to accommodate the additional pedestrian volumes.

Vehicles entering and exiting the service driveway on Mission Street, and on Eighth Street could cause movement conflicts with passing pedestrians. The occurrence of conflicts would not have a significant effect on pedestrian conditions, because pedestrian volumes would be relatively light on Mission Street and Eighth Street.

BICYCLE IMPACTS

Two Class II bicycle lanes, on Market Street (between Eighth Street and Van Ness Avenue) and on the north side of Howard Street (between Fremont Street and Eleventh Street), have recently been installed in the vicinity of the project site.

No bicycle counts were conducted for the project, but field observations showed that bicycle volumes on most streets within the study area, except Market Street, are relatively low. Market Street is a main bicycle route to and from downtown and experiences moderate bicycle volumes in the vicinity of the project site during the day. Vehicles bound for the project site that are traveling in the eastbound direction on Market Street would turn right onto Eighth Street (southbound), exacerbating vehicle-bicycle conflicts along Market Street. However, it is not anticipated that the proposed project would cause a significant negative impact on bicycle conditions in the study area because the proposed project would not alter existing roadway configurations.

PARKING IMPACTS

Parking Requirements

The project would include 1,200 off-street parking spaces for residential uses and 250 short-term public parking spaces in a five-level parking garage, including three levels below grade. Table 13 compares the project parking supply to the *Planning Code* off-street parking requirements.

**TABLE 13
 OFF-STREET PARKING REQUIREMENTS AND SUPPLY**

Use	Size	Code	Requirement	Maximum Allowed ¹	Proposed Supply	Difference (vs. Maximum)
Residential	1,900 units	1 space/ 4 units	475	713	1,200	487
Retail	48,000 gsf	None	0	10	0	-10
Restaurant	12,000 gsf	None	0	2	0	-2
Short-term Public Parking	--	--	--	--	250	250
Total			475	725	1,450	725

Sources: CHS Consulting Group, 2003, and *Planning Code*

Note:

1. Maximum Allowed includes permitted and accessory parking under *Planning Code* Section 204.5. For residential parking, the Code maximum is 150 percent of the required one space per unit, or $475 \times 1.5 = 713$. For retail and restaurant uses, where no parking is required in C-3 districts, the Code maximum is seven percent of gross floor area. This would be equivalent to 12 spaces, as shown in this table.

Based on the *Planning Code* parking requirements for the C-3 District, the project would be required to provide 475 spaces for the residential use (one space per four units), and none for the retail or restaurant uses. *Planning Code* Section 204.5 allows projects within the C-3 Districts to provide up to seven percent of the total gross floor area, or 150 percent of the required parking, as accessory parking (whichever is greater). For the project, this would be up to 725 total accessory parking spaces. The 1,450 proposed spaces would exceed the 725 spaces permitted under Section 204.5. Therefore, the project would require the proposed conditional use authorization under *Planning Code* Section 303 for accessory parking. Proposed parking would

also be permitted under the terms of the Development Agreement to be executed by the City and the project sponsor, under San Francisco Administrative Code Chapter 56.

Planning Code Section 155 (i) require one disabled parking space for each 25 off-street parking spaces, and Section 155 (j) requires one bicycle parking space for each 20 off-street parking spaces, with a maximum of 50 required bicycle spaces. The proposed project would therefore require 58 handicapped parking spaces and 50 bicycle spaces. The proposed project would provide 67 handicapped-accessible parking spaces and 50 Class 1 bicycle parking spots and would meet or exceed *Planning Code* requirements.

Under the proposed Mid-Market Special Use District (SUD), the principally permitted accessory parking in *Planning Code* Sections 151 and 204.5 for the C-3-G zoning district would be the maximum amount of accessory parking for uses in the SUD. Additional residential accessory parking, up to a maximum of space for one car per dwelling unit, may be permitted as a conditional use for the project. The proposed SUD would require ten on-site car-share spaces (Proposed *Planning Code* §166(b)) and 400 Class 1 bicycle parking spaces (the maximum amount) (Proposed *Planning Code* §155.5(a)). The project would include four car-share spaces and 50 Class 1 bicycle parking spaces. With conditional use review, the project could provide one parking space per dwelling unit, or up to 1,900 spaces. However, the project would be exempt from the proposed SUD under the terms of the Development Agreement, noted above, to be executed by the City and the project sponsor.

Parking Demand

Table 14 compares the estimated parking demand for the proposed project to the proposed parking supply. The parking demand would exceed the parking supply by 693 spaces. The project retail/restaurant uses would generate a total long-term and short-term demand for 173 spaces. This demand could be accommodated in the project parking, which would have 250 short-term public parking spaces and thus exceed the estimated demand by 77 spaces. The residential uses would generate a demand for 2,143 spaces compared to the proposed 1,200 residential parking spaces. The project would have a short-fall of 770 residential parking spaces.

TABLE 14
PROJECT PARKING DEMAND

Land Use	Long-term	Short-term	Total Demand	Supply	Difference
Retail (48,000 gsf)	34	100	134	250	77
Restaurant (12,000 gsf)	8	31	39		
Residential 185 units (Affordable)	83	0	83	1,200	-770
1,715 units (Market-rate)	1,887	0	1,887		
Totals	2,012	131	2,143	1,450	-693

Source: CHS Consulting Group, 2005

As discussed previously, parking demand is estimated based on rates provided in the *SF Guidelines*. It is anticipated that actual demand for the proposed project could be lower than the calculated demand due to the project site's close proximity to public transit, including BART, MUNI, SamTrans, and Golden Gate Transit.

The existing parking facilities in the study area operate with some available capacity (83 percent occupied or approximately 479 spaces available during the midday and 26 percent occupied or 2,077 spaces available during early evening). Several of these parking facilities would be removed in the near future as a result of proposed development projects. It is difficult to estimate how many parking spaces would be lost and future parking conditions in the study area because of on-going review of development projects. However, it is possible that a portion or all unmet residential parking demand could be accommodated by these existing facilities.

The existing 450 parking spaces at the project site includes about 200 leased to residents, property management staff, and long-term leases, and about 250 are available for hourly or daily use. With the project, future residential and management staff parking would be accommodated in project residential parking. The demand for up to 250 short-term or daily public spaces would remain.

As noted, the project would provide 1,200 parking spaces for the residential uses, while the *Planning Code* Section 204.5 maximum permitted accessory residential parking would be 713

spaces. Additional parking must be approved as a principal or conditional use. If the project were to provide only 713 spaces for the 1,900 residential units, the following conditions might occur: 1) more residents who owned cars would seek long-term parking in existing on-street or off-street parking in the vicinity; or 2) more residents would choose not to own cars, which would reduce parking demand that would need to be accommodated in off-site parking. Those off-site parking spaces would likely be in the South of Market area, which currently has lower occupancy rates for existing parking facilities than North of Market. The actual changes in parking conditions would be a combination of those factors. It is possible that reduced parking at the site would in turn change peak-hour vehicle trips, including trips through the Eighth Street/Mission Street intersection, but changes in the amount of parking at the project site would not directly affect the future traffic conditions presented in this EIR. The EIR assesses a conservative scenario for parking and traffic. Under the conservative assumptions, all traffic would be generated at/or attracted to the project site itself, as if all vehicle trips were to park at the project site or block. In turn, those assumptions result in most vehicle trips being assigned to intersections near the project block. With those conservative assumptions, the project would contribute to the significant cumulative adverse impact on intersection LOS at the Eighth Street/Mission Street intersection, noted on p. 141, irrespective of the parking supply at the site.

Under *California Public Resources Code* Section 21060.5, “environment” means “the physical conditions which exist within the area which would be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.” San Francisco does not consider parking supply as part of the permanent physical environment. Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Therefore, parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA.

Parking deficits may be associated with secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality, or noise effects caused by congestion. However, as noted above, in the experience of San Francisco transportation planners, the absence

of a ready supply of parking spaces combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot), and a relatively dense pattern of urban development may induce drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service in particular would be in keeping with the City's Transit First policy.

Additionally, regarding potential secondary effects, drivers circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impact that may result from a shortfall in parking in the vicinity of the proposed project would likely be minor and difficult to predict.

Thus, a parking shortage is not considered to be a permanent condition and is also not considered to be a physical environmental impact even though it is understood to be an inconvenience to drivers. Therefore, an increase in parking demand resulting from a proposed project that cannot be met by existing or proposed parking facilities would not itself be considered a significant environmental effect under CEQA. In the absence of such physical environmental impacts, CEQA does not require environmental documents to propose mitigation measures solely because a project is expected to generate parking shortfalls.

Parking Requirement and Supply by Development Phase

The proposed 1,450 parking spaces would be constructed in three phases with the construction of the Buildings A, B, and C. Table 15 presents compares the *Planning Code* parking requirements to the parking supply for each development phase. As shown in the table, the total parking supply for each phase would meet the *Planning Code* requirements.

TABLE 15
PARKING REQUIREMENTS AND SUPPLY BY PHASE

Use	Residential (Units)	Retail/Restaurant (gsf)	Code Requirement	Maximum Allowed	Total Supply
Phase I	440	0	110	165	405
Phase II	545	30,000	246	375	750
Phase III	915	30,000	475	725	1,450

Source: Arquitectonica 2005 and CHS Consulting 2005.

Parking Garage Effects on MUNI Bus Lane on Mission Street

The proposed project would have a service drive on Mission Street, which would provide access (right-turn in and right-turn out only) to the proposed parking garage and loading facilities. Westbound vehicles using this driveway would use the PM peak period MUNI bus-only lane (4:00 p.m. to 6:00 p.m.) on the north side of Mission Street to enter or exit the driveway. There would be approximately 112 PM peak-hour vehicle-trips using this access point, of which 85 would be inbound and 27 would be outbound.

In the inbound direction from Mission Street into the garage, there would be a peak queue of approximately two vehicles during the peak hour. Because the garage entrance would be approximately 120 feet north of Mission Street, two passenger vehicles could be accommodated on this driveway (see Figure 4, p. 34). Thus, the two-car queue would be completely accommodated within the driveway and would not create backups on Mission Street.

MUNI buses could potentially be delayed when vehicles in the bus lane slow down to turn into the project driveway. However, the delay would not be significant, because the time a vehicle would take to enter the driveway from the bus-only lane would be only a few seconds. Cars exiting the driveway would not likely affect MUNI bus operations as they would wait in the driveway until there was a gap in the traffic for safe exiting.

Left-turns to and from the Mission Street driveway would not be permitted, and illegal left-turns to and from Mission Street would adversely delay MUNI operations. The project would install and maintain necessary signs to indicate to eastbound Mission Street vehicles that left-turns into the project driveway are not allowed. The project would not install signs facing eastbound traffic announcing “Parking.” This would discourage a left-turn to the Mission Street driveway. The project would also install a sign at the Mission Street exit requiring a right-turn onto Mission Street.

LOADING IMPACTS

Loading Requirements

Loading requirements for the proposed project were calculated based on *Planning Code* Sections 152.1 and 153(1). The *Planning Code* would require seven off-street loading spaces. The project would provide five full-size loading spaces and four van-size service vehicle spaces. The *Planning Code* allows substitution of two van-size service vehicle loading spaces for each full-size loading space if 50 percent of the loading requirements are met. Therefore, the project would meet *Planning Code* requirements for loading spaces.

Two of the full-size loading spaces and the four service vehicle spaces would be in the proposed service court with access from Mission Street. The two loading spaces would have direct access to a freight elevator. All of the retail and the residential uses in Buildings A, B, and C would be served directly from these loading facilities. All loading spaces would meet *Planning Code* dimensional requirements for loading spaces.

Loading Demand

Table 16 shows project loading demand. The proposed project would generate a total of 56 daily truck trips, or a demand for approximately three (3.27) peak-hour loading spaces and three (2.61) average-hour loading spaces. The proposed project would provide nine off-street loading spaces (five full-size and four van-size spaces) and thus satisfy demand.

TABLE 16
PROJECT LOADING DEMAND

Use	Daily Truck Trips	Peak Hour Demand	Average Hour Demand
Retail/Restaurant	13	0.76	0.61
Residential	43	2.51	2.00
Total	56	3.27	2.61

Source: CHS Consulting Group, 2005.

Loading Operations

Trucks would access the project site from Stevenson Street and from Mission Street. Trucks entering the loading space on the first level of the garage would back into the space from the service driveway, which would be approximately 34 feet wide. Truck maneuvering would occur off-street and thus not affect traffic on either Stevenson Street or Mission Street. The service driveway would be adequate to allow most trucks to back into the loading space in a single maneuver. Larger moving trucks would likely need several maneuvers to enter a loading space. Loading operations would not cause substantial delays on adjacent streets.

CONSTRUCTION EFFECTS

Impacts associated with construction activities are not considered significant as they are temporary and of short-term duration. Construction impacts are discussed with respect to the following:

- Traffic due to possible lane closures and truck routing
- Parking supply
- Pedestrian pathways due to sidewalk closures
- MUNI bus operations due to lane closures

The construction is expected to take place in four phases:

- Phase I would involve the construction of Building A with 440 dwelling units.
- Phase II would involve the construction of Building B with 545 units and 30,000 gsf of retail/restaurant uses.

- Phase III would involve the construction of a portion of Building C. Building C would have a total of 915 units 30,000 gsf of retail uses.
- Phase IV would involve the construction of the remainder of Building C.

The construction of each building would involve foundation, framing, and interior work, except for Phase II. Phase II construction would involve the demolition of the existing Trinity Plaza Apartments building. The demolition of the existing building would take approximately five months. There would be at maximum 48 trucks with 10 to 20 workers working at the site each day during this stage.

Construction equipment and materials during the first phase of construction would all be stored on site. The Mission Street sidewalk for the length of the project would be required for the first 19 months of construction (until the framing is complete). Construction workers would need to find parking on nearby streets, or the project sponsor would have to make off-street parking arrangements at the site or in the nearby area.

If the construction of the proposed project occurred simultaneously with the proposed 1125 Market Street Project, the 1160 Mission Street Project, and the GSA Building, disruptions to traffic and transit operations could potentially occur. The contractor and project sponsor should work with DPW, DPT, MUNI, and the project sponsors of the neighboring projects to coordinate construction schedules, so that impacts are minimized.

Construction operations, truck and equipment traffic, and sidewalk closures would cause some short-term traffic disruptions, but would not create significant adverse traffic impacts.

CUMULATIVE ANALYSIS (YEAR 2020)

Future cumulative conditions were based on growth rates derived from the *Mid-Market and South-of-Market Redevelopment Area Transportation Study*, *Tenth/Market/Mission Streets Mixed-Use Project Transportation Study*, and *Market & Octavia Plan EIR Transportation Study*. The volumes from these studies are based on growth rates derived from the *Mid-Market and South-of-Market Redevelopment Area Transportation Study*, adjusted to account for the change in proposed development for the Tenth/Market Street project and *Market & Octavia Plan*. Future cumulative

volumes for intersections of Market Street/Ninth Street, Market Street/Van Ness Avenue, and Mission Street/South Van Ness Avenue were calculated from the *Market & Octavia Plan EIR Transportation Study* using a pro-rated growth rate to convert year 2025 volumes to year 2020 volumes.

Cumulative Traffic Impacts

Under *Future (2020) Cumulative* conditions, two of the signalized intersections would operate at LOS E or F: Eighth Street/Mission Street and South Van Ness Avenue/Mission Street, see Table 10, p. 127. To ascertain the significance of the project's impacts on future traffic volumes at these intersections, its contribution was examined versus both the entire intersection and the movements that determine the overall 2020 cumulative LOS conditions. The project's contribution to total future traffic volumes under cumulative conditions is shown in Table 17.

At the Eighth Street/Mission Street intersection, there would be significant cumulative traffic impacts, due to anticipated background traffic growth, which would cause LOS at this intersection to deteriorate to LOS F under 2020 conditions. At the intersection of Mission Street/Eighth Street, project-generated traffic would contribute 19 percent of the future volume of the critical southbound left-turn movement. Therefore, the project's traffic would represent a considerable contribution to significant cumulative traffic impacts. Mitigation Measure B.1 in Section IV would be implemented. However, a feasibility study would be required prior to implementation, therefore, the project is considered to have a significant, unavoidable impact for the cumulative condition.

TABLE 17
PROJECT CONTRIBUTION TO TRAFFIC GROWTH

Intersection	Existing Volume	Future Cumulative Volume	Growth	Project Volume	% of Growth	% of Future Volume
Market Street/ Van Ness Avenue	4662	5468	806	17	2.1%	<1%
Mission Street/Eighth Street	3440	4087	647	160	24.7%	3.9%
Mission Street/ South Van Ness Avenue	5160	5831	671	13	1.9%	<1%

Source: CHS Consulting Group, 2005.

The intersection of Mission Street/South Van Ness Avenue would operate at LOS F with a delay of over 80 seconds. The proposed project would add very few cars to this intersection (approximately 13) and would not have a considerable contribution to a significant cumulative impact.

Cumulative Transit Impacts

MUNI Screenline Analysis

Table 18 shows the future cumulative transit screenline analysis for MUNI. Between existing and 2020 cumulative conditions, ridership demand for the four MUNI screenlines is projected to increase by 19.5 percent and capacity is expected to increase by only 14 percent from existing conditions. Cumulative conditions would approach capacity at all screenlines.

The proposed project would contribute approximately four percent to the growth in demand at all of the MUNI screenlines. The largest contribution would be to the northeast screenline in the Kearny/Stockton Corridor, which is projected to operate at 80 percent capacity. The contributions to other corridors would be small (less than or equal to 2 percent). The proposed project's contributions to the growth in transit demand would not be considerable and would not constitute a significant impact on MUNI operations.

Regional Screenline Analysis

Table 19 shows that under future cumulative conditions, all carriers except BART would operate with sufficient capacity to accommodate demand. BART would operate at very high occupancy rates to the East Bay (129 percent) and would see a large increase in demand to the South Bay (from 3,157 to 14,385 trips). Part of this increased demand is the result of the BART extension to the San Francisco International Airport and Millbrae. The result of the high future demand would be crowded conditions on BART during the PM peak hour in the outbound direction. It is likely that this overcrowding would cause some passengers to try alternative transit modes, including Caltrain and SamTrans to the South Bay and AC Transit to the East Bay, all of which would have sufficient capacity in the future. BART staff indicated that they could lengthen the South Bay trains to accommodate the increased demand. If each train during weekday evening period were lengthened to ten cars, the capacity utilization would be reduced to about 120 percent. The project would have negligible contributions to the increased ridership and would not be considered to have a significant impact on ridership.

TABLE 18
MUNI SCREENLINE ANALYSIS - FUTURE CUMULATIVE PM PEAK-HOUR CONDITIONS

Screenline	Existing Ridership	Existing Capacity	Future Demand	Future Capacity	Future Capacity Utilization	Growth	Project Trips	% of Growth
Northeast Screenline								
Kearny/Strockton	2,217	2,611	2,770	3,468	80%	553	76	19%
All Other Lines	946	1,706	911	1,596	57%	(35)	76	--
Subtotal	3,163	4,317	3,681	5,064	73%	518	151	41%
Northwest Screenline								
Geary Corridor	2,509	2,942	2,915	3,099	94%	406	8	4%
All Other Lines	5,956	6,989	6,939	8,293	84%	983	2	0%
Subtotal	8,465	9,932	9,854	11,392	86%	1,389	10	1%
Southeast Screenline								
Third Street Corridor	424	595	758	893	85%	334	4	3%
Mission Corridor	1,168	1,325	1,497	1,685	89%	329	4	4%
All Other Lines	1,982	2,170	2,818	2,600	108%	836	0	0%
Subtotal	3,575	4,090	5,073	5,178	98%	1,498	8	2%
Southwest Screenline								
Subway Lines	5,259	5,891	5,927	6,188	96%	668	6	2%
All Other Lines	1,409	1,830	1,588	1,837	86%	179	2	2%
Subtotal	6,667	7,721	7,514	8,025	94%	847	8	2%
TOTAL	21,870	26,060	26,123	29,659	88%	4,253	271	6%

Source: Wilbur Smith Associates, 2001

Notes: Capacity = design capacity x number of scheduled bus trips, Capacity Utilization = passenger demand / capacity.
 Totals may not add up due to rounding.

TABLE 19
REGIONAL PROVIDER SCREENLINE ANALYSIS - FUTURE CUMULATIVE PM PEAK HOUR CONDITIONS

Transit Provider	Existing Ridership	Existing Capacity ¹	Future Demand	Future Capacity ¹	Future Utilization	Future Capacity	Growth	Project Trips	% of Growth
East Bay									
BART	17,537	14,560	25,294	19,600	129%	7,757	18	0%	
AC Transit	3,143	1,896	5,472	7,320	75%	2,339	9	0%	
Ferry	646	1,629	1,932	2,808	69%	1,286	0	0%	
<i>Subtotal</i>	<i>21,326</i>	<i>21,085</i>	<i>32,698</i>	<i>29,728</i>	<i>110%</i>	<i>11,372</i>	<i>27</i>	<i>0%</i>	
North Bay									
GGT buses	3,132	5,339	4,384	5,339	82%	1,252	14	1%	
GGT ferries	755	2,410	1,127	2,710	42%	372	5	1%	
<i>Subtotal</i>	<i>3,886</i>	<i>7,749</i>	<i>5,511</i>	<i>8,049</i>	<i>71%</i>	<i>1,625</i>	<i>19</i>	<i>1%</i>	
South Bay									
BART	3,157	10,360	14,385	10,360	139%	11,228	12	0%	
Caltrain	1,900	2,900	4,000	5,800	69%	2,100	3	0%	
SamTrans	785	1,083	1,100	1,300	85%	315	3	1%	
<i>Subtotal</i>	<i>5,842</i>	<i>14,343</i>	<i>19,485</i>	<i>17,460</i>	<i>112%</i>	<i>13,643</i>	<i>18</i>	<i>1%</i>	
TOTAL	31,055	43,177	57,694	55,237	104%	24,182	65	0%	

Source: Wilbur Smith Associates, 2001

Notes:

¹ Capacity based on the number of seats per transit vehicle.
Totals may not add up due to rounding.

F. AIR QUALITY

SETTING

APPLICABLE PLANS AND REGULATIONS

Ambient Air Quality Standards

Federal, state, and local laws and regulations form the foundation for controlling air pollution. The federal *Clean Air Act*, including amendments of 1990, and the *California Clean Air Act of 1988* specify that federal and state regulatory agencies set upper limits on the airborne concentrations of six criteria air pollutants. National Ambient Air Quality Standards exist for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter and lead.¹ Reactive organic gases (ROG) and oxides of nitrogen (NO_x) are also regulated as precursor contaminants that react in the atmosphere to form ozone, and particulate matter is regulated as inhalable particulate matter 10 microns or smaller in diameter (PM₁₀).

Federal and state air quality standards for these pollutants, presented in Table 20 are upper limits designed to protect all segments of the population including those most susceptible to the pollutants' adverse effects (e.g., children, the elderly, people weak from illness or disease, or persons doing heavy work or exercise).

Air Quality Management Plans

The federal *Clean Air Act*, as amended, and the *California Clean Air Act* provide the legal framework for attaining and maintaining the ambient air quality standards. Both the federal and state acts require that the California Air Resources Board (ARB) designate as "nonattainment areas" portions of the state where federal or state ambient air quality standards are not met. Where a pollutant exceeds standards, air quality management plans must be formulated that demonstrate how the standards will be achieved. These laws also provide the

¹ National Ambient Air Quality Standards have been established for criteria pollutants, named for the "criteria" documents that justified their regulation.

TABLE 20
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standard^{1,3}	Federal Standard²	
			Primary^{3,4}	Secondary^{3,5}
Ozone	1-hour	0.09 ppm (180 $\mu\text{g}/\text{m}^3$)	0.12 ppm (235 $\mu\text{g}/\text{m}^3$)	Same as Primary
	8-hour	---	0.08 ppm (160 $\mu\text{g}/\text{m}^3$)	Same as Primary
Carbon Monoxide	1-hour	20.0 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	---
	8-hour	9.0 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)	---
Nitrogen Dioxide	1-hour	0.25 ppm (470 $\mu\text{g}/\text{m}^3$)	---	---
	Annual Avg	---	0.053 ppm (100 $\mu\text{g}/\text{m}^3$)	Same as Primary
PM ₁₀	24-hour	50 $\mu\text{g}/\text{m}^3$	150 $\mu\text{g}/\text{m}^3$	Same as Primary
	Ann Geo Mn	20 $\mu\text{g}/\text{m}^3$	---	---
PM _{2.5}	Ann Arith Mn	---	50 $\mu\text{g}/\text{m}^3$	Same as Primary
	24-hour	---	65 $\mu\text{g}/\text{m}^3$	Same as Primary
Sulfur Dioxide	Ann Arith Mn	12 $\mu\text{g}/\text{m}^3$	15 $\mu\text{g}/\text{m}^3$	Same as Primary
	1-hour	0.25 ppm (655 $\mu\text{g}/\text{m}^3$)	---	---
	3-hour	---	---	0.5 ppm (1,300 $\mu\text{g}/\text{m}^3$)
	24-hour	0.04 ppm (105 $\mu\text{g}/\text{m}^3$)	0.14 ppm (365 $\mu\text{g}/\text{m}^3$)	---
Sulfates	Ann Arith Mn	---	0.03 ppm (80 $\mu\text{g}/\text{m}^3$)	---
	24-hour	25 $\mu\text{g}/\text{m}^3$	---	---
Lead	30-day Avg	1.5 $\mu\text{g}/\text{m}^3$	---	---
	Calendar Qtr	---	1.5 $\mu\text{g}/\text{m}^3$	Same as Primary
Hydrogen Sulfide	1-hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	---	---
Visibility Reducing Particles	8-hour	Extinction coefficient of	---	---
	observation	0.23 per kilometer ⁶		

Source: Bay Area Air Quality Management District. CEQA Guidelines, *Assessing the Air Quality Impacts of Projects and Plans*, April 1996, revised December 1999.

Notes: --- = no standard; ppm = parts per million; $\mu\text{g}/\text{m}^3$ = microgram per cubic meter; mg/m³ = milligrams per cubic meter, Avg. = average, Ann = annual, Arith = arithmetic, Geo = geometric, Mn = mean, Qtr = quarter

¹ California standards for ozone, CO, SO₂, NO₂, and PM₁₀ and visibility reducing particles are values that are not to be exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In addition, Section 70200.5 lists vinyl chloride under standards for hazardous substances.

² The form of the national standards (i.e., how the standard is applied) varies from pollutant to pollutant. For further information, 40 CFR Part 50 includes the relevant form for each federal standard.

³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based upon reference temperature of 25°C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.

⁴ Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the U.S. EPA.

⁵ Secondary Standards: The levels of air quality necessary, to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by U.S. EPA.

⁶ Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors. Visibility standard expressed in terms of extinction due to particles when the relative humidity is less than 70 percent.

basis for the implementing agencies to develop mobile and stationary source performance standards.

The Bay Area Air Quality Management District (BAAQMD) is primarily responsible for planning, implementing, and enforcing the federal and state ambient standards in the Bay Area. Environmental Protection Agency (EPA) approval of the *1982 Bay Area Air Quality Plan* (referred to as the *1982 Plan*), which indicates how the BAAQMD will implement federal air quality requirements, resulted in the *1982 Plan* being incorporated into the *State Implementation Plan*. The region's *State Implementation Plan* is a compilation of plan components and air pollution control regulations that when taken together are designed to enable the region to attain and maintain the federal standards. Along with the BAAQMD, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) also contribute to the *State Implementation Plan*. The BAAQMD updated the *1982 Plan* and adopted the *Bay Area '91 Clean Air Plan* to implement the requirements of the *California Clean Air Act of 1988*. As required by the *California Clean Air Act* and subsequent 1992 amendments, the BAAQMD also prepared the *1994 Clean Air Plan Update*, the *Bay Area '97 Clean Air Plan*, and the *Bay Area 2000 Clean Air Plan*. The state ozone standard and the state PM₁₀ standard are exceeded (violated) in the region. To meet the state ozone standard, the BAAQMD adopted the *2000 Clean Air Plan* on December 20, 2000 and submitted it to the California ARB as required by the *California Clean Air Act*. The *2000 Clean Air Plan* includes a control strategy review to ensure that the plan continues to include "all feasible measures" to reduce ozone. No state plan is required to meet state PM₁₀ measures.

In 1998, the Bay Area was redesignated as nonattainment for the federal ozone standards. Under the EPA's direction, the BAAQMD prepared and submitted the *Bay Area Ozone Attainment Plan* in June 1999 (referred to as the *1999 Plan*) as a revision to the *State Implementation Plan*. This attainment plan was partially rejected by EPA. The parts of the *1999 Plan* that were disapproved include ozone attainment assessment, consistency of regional transportation plans and programs with air quality attainment plans, and the Reasonably Available Control Measure demonstration. In response to EPA's disapproval of the *1999 Plan*, a *Bay Area 2001 Ozone Attainment Plan* (Final Plan) was prepared in June 2001 by the

BAAQMD, MTC, and ABAG. This Final Plan was initially rejected by the California ARB prior to its submittal to the EPA. Addenda to this plan were presented to the California ARB in October 2001, approved, and submitted to the EPA for approval of the Final Plan. On February 14, 2002, EPA determined that the motor vehicle emission budgets in the Final Plan are adequate for conformity purposes.

The State Implementation Plan measures for reducing emissions of reactive organic compounds and nitrogen oxides affect all source categories. Emissions limitations are imposed upon sources of air pollutants by rules and regulations promulgated by the federal, state, or local agencies. Mobile sources of air pollutants are largely controlled by federal and state agencies through emission performance standards and fuel formulation requirements. The BAAQMD regulates stationary sources through its permitting and compliance programs. The BAAQMD is responsible for implementing stationary source performance standards and other requirements of federal and state laws.

Local environmental plans and policies also recognize community goals for air quality. The *San Francisco General Plan* includes the 1997 Air Quality Element.² The objectives specified by the City include the following:

- Objective 2: Reduce mobile sources of air pollution through implementation of the Transportation Element of the *General Plan*.
- Objective 3: Decrease the air quality impacts of development by coordination of land use and transportation decisions.
- Objective 5: Minimize particulate matter emissions from road and construction sites.
- Objective 6: Link the positive effects of energy conservation and waste management to emission reductions.

² City and County of San Francisco, Planning Department, Air Quality - An Element of the *General Plan* of the City and County of San Francisco, July 1997, updated in 2000.

AIR QUALITY CONDITIONS

Climate

The San Francisco Bay Area's regional meteorological conditions are cool and dry in the summers and mild and moderately wet in the winters. A daytime sea breeze provides fresh air to the Bay Area, but also tends to cause temperature inversions by positioning cool surface air underneath warmer upper-air. The inversions limit vertical motion of pollution and cause pollution potential to be the highest in the sheltered valleys throughout the region and in the subregions that are not directly affected by the marine air entering through the Golden Gate.³

Regional and Local Air Quality

The nine-county San Francisco Bay Area Air Basin has a history of recorded violations of federal and state ambient air quality standards for ozone, carbon monoxide, and inhalable particulate matter. Since the early 1970s, the Bay Area has made progress toward controlling these pollutants. The progress has led the area to attaining all state and federal standards except those for ozone and PM₁₀. The Bay Area is an ozone nonattainment area for state and federal purposes. Although the Bay Area does not meet the state standard for PM₁₀, it meets the federal standard.

The criteria air pollutants for which national and state standards have been promulgated (and that are most relevant to air quality planning and regulation in the Bay Area) are ozone, fine suspended particulate matter, and carbon monoxide. Each of these is briefly described below.

- *Ozone* is a gas that is formed when ROGs and NOx, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- *Fine Suspended Particulate Matter* consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM₁₀, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM₁₀ is

³ BAAQMD, *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans*, April 1996, Revised December 1999, Appendix D.

caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.

- *Carbon Monoxide* is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

The BAAQMD operates air quality monitoring stations in San Francisco at 10 Arkansas Street (at the foot of Potrero Hill) and at 939 Ellis Street (near the Civic Center). The Ellis Street station data would probably be more representative of conditions in the project vicinity; however, the Ellis Street station monitors only carbon monoxide. Peak carbon monoxide concentrations observed at the Ellis Street station tends to be higher than those observed at Arkansas Street. Ozone, CO, and PM₁₀ data at the Arkansas Street station show the following:

- During the period of 2000 through 2004, the state and federal 1-hour and 8-hour ozone standards were not exceeded (violated) on any day at the Arkansas Street station.
- During the period of 2000 through 2004, the state 24-hour PM₁₀ standard was exceeded in no more than 10 percent of the samples per year, the federal 24-hour standard was not exceeded at all, and the state and federal annual standards were not exceeded at all. The federal standards were not exceeded in the district.

The regional and local air quality data show that the region has made considerable progress toward meeting the state and federal standards. At this time, the region does not meet ozone standards, and violations of the state and federal standards for ozone continue to persist. Pollutants tend to be carried away from San Francisco into the more sheltered areas of the region and cause violations of the standards in those locations. In this manner, regional benefits would occur with efforts to control San Francisco's emissions.

EXISTING LOCAL AIR QUALITY

The emission sources that currently exist in the project area are traffic-related; most notable are the heavy volumes of traffic along Market Street, Mission Street, Eighth Street, and Ninth Street. Emissions due to traffic congestion dominate the localized air quality in the vicinity of

the project area. Existing land uses surrounding the project vicinity constitute minor sources of air emissions (e.g., water heaters, ventilation equipment, etc.) from residential, office, and commercial activity.

Land uses in the vicinity of the project site include residential, office, commercial, institutional, and other uses. Motor vehicles are the primary source of pollutants in the downtown area. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed national and/or State standards for CO are termed CO "hotspots." These hotspots can become a problem if people are exposed to the high concentrations for long periods of time (i.e., one hour or more when compared to the national and state one-hour standards and eight hours or more when compared with the national and state eight-hour standards). The national one-hour standard is 35.0 parts per million (ppm), and the state one-hour standard is 20.0 ppm. The eight-hour national and state standards are 9.0 ppm and 9.0 ppm, respectively.

EXISTING SITE EMISSIONS

The proposed project would replace an existing four- to seven-story apartment building, which contains 377 residential rental units and surface and below-grade parking. Existing air emissions are generated by stationary sources, such as heating, ventilation, and air-conditioning (HVAC) equipment, landscape maintenance equipment, and motor vehicle trips. Motor vehicles are the primary source of air pollutant emissions associated with the project area.

SENSITIVE RECEPTORS

Land uses such as schools, children's day care centers, hospitals, and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions than commercial and industrial areas, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational uses

are also considered sensitive, due to the greater exposure to ambient air quality conditions, and because the presence of pollution detracts from the recreational experience. In general, residential, retail, hotel, office, cultural, institutional uses, and parking lots predominate the project vicinity on Market Street, Mission Street, and Eighth Street. Unlike the existing building on the project site, most of the existing buildings in the area have ground-floor retail space and are built out to the property lines. There are no recreational areas, schools, convalescent homes, or hospitals in the immediate project vicinity.

IMPACTS

SIGNIFICANCE CRITERIA

The *BAAQMD CEQA Guidelines* identifies significance criteria to assist lead agencies in evaluating potential air quality impacts of projects. The City of San Francisco uses these criteria when evaluating proposed development projects and plans. As such, the proposed project may result in significant air quality impacts if it results in any of the following effects: (1) causes localized CO concentrations near congested intersections to exceed national and/or state standards or makes a cumulatively considerable contribution to CO concentrations that exceed standards without the project; (2) generates new sources of operational emissions that generate 80 pounds per day (ppd) of ROG, NO_x, or PM₁₀; or (3) generates objectionable odors affecting a substantial number of people.

PROJECT EFFECTS

Construction Effects

Demolition of the existing building and construction of the proposed project would be expected to occur over several phases. Four types of activities within each phase of development would be expected to occur and to generate air pollutant emissions. First, the existing structures would be demolished and existing surface features cleared. Following demolition, the project site would be excavated and graded to accommodate the new buildings and surface improvements. The new buildings would then be constructed and readied for use.

Construction activities would generate airborne dust that could adversely affect the surrounding area. The principal pollutant of concern would be PM₁₀. The *BAAQMD CEQA Guidelines* recommend an analytical approach that eliminates the need to quantitatively estimate and evaluate construction emissions. Because construction-related PM₁₀ emissions primarily affect the area surrounding a project site, the BAAQMD recommends that all dust control measures that the BAAQMD considers to be feasible, depending on the size of the project, be implemented to reduce the localized impact to the maximum extent. Mitigation measures set forth in the Initial Study, Appendix A, p. A-35, and in Section IV, Mitigation and Improvements Measures, are consistent with Objective 5 of the *San Francisco General Plan Air Quality Element*, and would be implemented in accordance with BAAQMD's recommended construction control measures and standard City practices. Therefore, construction activities associated with the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation and would be considered a less-than-significant impact.

Construction activities could also generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust) and the application of architectural coatings. However, diesel exhaust emissions can be minimized by implementing mitigation measures and by placing stationary sources of diesel exhaust emission (e.g., diesel-powered portable generators or air compressors) as far away from the project's property line and sidewalks as possible. In addition, the application and use of architectural coating is regulated by BAAQMD.⁴ As such, implementation of the recommended construction equipment exhaust mitigation measures and compliance with BAAQMD's regulations regarding architectural coating would reduce these impacts to a less-than-significant level.

Operational Effects

When completed, the proposed project would include approximately 1,900 residential units, up to 60,000 sq. ft. of retail uses, and 1,450 parking spaces. The daily emissions of air pollutants would increase due to the increased number of motor vehicles used by residents, workers, and

⁴ BAAQMD, *Regulation 8, Organic Compounds, Rule 3, Architectural Coatings*, BAAQMD Regulations, Adopted March 1, 1978.

visitors to the project. The net increase in daily operational emissions (the proposed project's vehicle trips minus existing vehicle trips) has been calculated using the URBEMIS 2002 (Version 8.7) motor vehicle emissions model and the traffic volumes predicted for the project.⁵ The results of this analysis are presented in Table 21, along with the thresholds of significance recommended by the BAAQMD.⁶ As shown, the net increase in daily operational emissions would not exceed the recommended thresholds; therefore this impact would be less than significant.

TABLE 21
FUTURE DAILY OPERATIONAL AIR QUALITY EFFECTS

Source of Emissions	Net Increase in Daily Emissions in Pounds per Day		
	ROG	NO_x	PM₁₀
Residential Motor Vehicle Trips	16.63	13.96	27.90
Restaurant Motor Vehicle Trips	1.48	1.41	2.48
Retail Motor Vehicle Trips	<u>3.09</u>	<u>2.70</u>	<u>4.57</u>
Total Emissions	21.21	18.05	34.95
Maximum Daily Thresholds	80.0	80.0	80.0

Source: EIP Associates, 2006.

The BAAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the BAAQMD and presented in its *CEQA Guidelines*. The simplified model is intended as a screening analysis in order to identify a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations.

⁵ 1177 Market Street Project Transportation Study, January 2006, prepared by CHS Consulting Group. This report is on file and available for public review by appointment at the Planning Department, 1660 Mission Street, Fifth Floor.

⁶ The calculation worksheets are on file and available for public review at the Planning Department.

Maximum existing CO concentrations were calculated for study intersections that operate at Level of Service (LOS) D, LOS E, or LOS F (these intersections have greater congestion and, therefore, higher localized concentrations of CO). The results of these calculations are presented in Table 22 for representative receptor locations at 50 feet from each roadway. These distances were selected because they represent locations where a person may be living, working, or resting at the project site for more than one or eight hours at a time. As shown, under worst-case conditions, existing CO concentrations near all of the study area intersections would not exceed national or state one-hour and eight-hour ambient air quality standards.

As shown in Table 22, existing and future CO concentrations near these intersections would not exceed the national 35.0 ppm and state 20.0 ppm one-hour ambient air quality standards or the national 9.0 ppm and state 9.0 ppm eight-hour ambient air quality standards when the project is fully operational. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the potential impacts of the proposed project would be less than significant.

TABLE 22
LOCALIZED CARBON MONOXIDE CONCENTRATIONS

CO Concentrations in Parts per Million at 50 Feet from Roadway^{1, 2}

Intersection	Existing		Existing Plus Project		Year 2020	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Seventh/Market	6.2	4.1	6.2	4.1	5.4	3.7
Eighth /Market	6.3	4.2	6.4	4.3	5.5	3.7
Ninth/Market	7.1	4.8	7.2	4.8	5.6	3.8
Van Ness/Market	6.8	4.6	6.8	4.6	5.7	3.9
Seventh/Mission	6.3	4.2	6.3	4.2	5.5	3.7
Eighth/Mission	6.5	4.4	6.8	4.5	5.6	3.8
Ninth/Mission	6.9	4.6	7.0	4.7	5.8	3.9
S. Van Ness/ Mission	7.5	5.0	7.5	5.0	5.9	4.0
Ninth/Bryant	6.4	4.2	6.4	4.3	5.5	3.7

Source: EIP Associates, 2006.

Notes:

¹ National 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.

² National 8-hour standard is 9.0 parts per million. State 8-hour standard is 9.0 parts per million.

CUMULATIVE EFFECTS

The BAAQMD neither recommends quantified analyses of cumulative construction emissions nor provides thresholds of significance that could be used to assess cumulative construction impacts. As discussed previously, the construction industry is an existing source of emissions within the Bay Area. Construction equipment operates at one site for a relatively short-term basis and, when finished, then moves on to a new construction site. The same situation occurs for the construction employees who make a living going from one site to another doing similar construction work. Because (1) construction activities would be temporary, (2) the contribution to the cumulative context is so small as to be virtually immeasurable, and (3) all of the appropriate and feasible construction-related measures recommended by the BAAQMD would be implemented in accordance with standard City practice, the contribution of construction emissions associated with the proposed project would not be cumulatively considerable.

With regard to operational emissions, the BAAQMD recommends several methodologies to determine the cumulative impacts of individual projects. For any project – such as the proposed 1177 Market Street project – that does not have significant operational air quality impacts, the determination of significant cumulative impact should be based on an evaluation of the consistency of the project with the local general plan and of the general plan with the current *Clean Air Plan*.

The *San Francisco General Plan* includes an 1997 *Air Quality Element*, updated in 2000. This element is consistent with the 2000 *Clean Air Plan*.⁷ The proposed project is consistent with the land use designations for the site and is consistent with the *Mid-Market Redevelopment Plan EIR*.⁸ As discussed previously in this section, the fugitive dust control measures that would be implemented during project construction are consistent with Objective 3 of the *San Francisco General Plan Air Quality Element* update. In addition, no significant PM₁₀ sources

⁷ BAAQMD, *Bay Area 2000 Clean Air Plan and Triennial Assessment*, Adopted by BAAQMD Board of Directors December 20, 2000.

⁸ San Francisco Redevelopment Agency and City and County of San Francisco, *Mid-Market Redevelopment Plan Final Environmental Impact Report*, 2002.0805E, certified September 18, 2003.

III. Environmental Settings and Impacts
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would be associated with the project beyond construction. For these reasons, the operational characteristics of the proposed project would not cause a cumulatively considerable increase in regional air pollutants.

Table 22 on p. 156 shows the future CO concentrations at the study intersections in 2020, with cumulative development that includes the proposed project. Localized concentrations of CO would change as a result of cumulative growth in the project vicinity. However, as shown in the table, future CO concentrations near these intersections would not exceed the national 35.0 ppm and state 20.0 ppm one-hour ambient air quality standards or the national 9.0 ppm and state 9.0 ppm eight-hour ambient air quality standards. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the impact of cumulative development would not be significant.

G. POPULATION AND HOUSING

Potential population and housing changes resulting from implementation of the proposed project were addressed in the Initial Study (Appendix A, pp. A-18 to A-19); the Initial Study determined that these effects would not have a significant effect on the environment. Because the project includes a plan to avoid the displacement of any current residents of Trinity Plaza Apartments that wish to remain, displacement of existing residents need not be studied further. This section is provided for informational purposes to assist in understanding the changes in population and housing that would occur if the proposed project were implemented. Physical environmental effects associated with changes in on-site population and housing, including transportation, air quality, and the potential for growth inducement, are addressed elsewhere in Section III.

SETTING

The project site currently includes the 377-unit Trinity Plaza Apartments. This four- to seven-story building was originally developed as a motel, and the 377 studio apartments were configured through remodeling of the motel's guest rooms. The building's 22 one-bedroom units were created from the motel's conference rooms. Rents for the studio units are set and periodically adjusted pursuant to the *Residential Rent Stabilization and Arbitration Ordinance, San Francisco Administrative Code Chapter 37*, "Rent Ordinance;" five of the one-bedroom units are subject to rent control.

Based on information provided by the project sponsor, Trinity Plaza Apartments has a history of relatively high turnover. This is at least partly due to the transient character of the residents that are attracted to the complex, many of whom are visiting students. The exact number of residents living at the property varies over time. As units are vacated, rents change based on market conditions, pursuant to the *Rent Ordinance* and state law, which both allow rents to increase to market rates when units are vacated (frequently referred to as vacancy decontrol). In 2001, for example, approximately 40 percent of the units turned over (i.e., were vacated and eventually became re-occupied by new residents), and in 2002, the turnover rate was approximately 60 percent. The unit-turnover rate appears to increase substantially,

concurrently with start and end dates at local schools (typically June and September). The project sponsor estimates that about 30 percent of existing units are occupied by long-term residents (more than five years).

If all existing units were occupied, there could be as many as 574 residents living in Trinity Plaza Apartments, based on an average household size of 1.52 (*2000 Census* data for Census Tract 176.01, which encompasses the project site). The actual number of residents is lower due to small apartment size, turnover and vacancy rates, and other factors. In January 2006, the project sponsor reported 280 units occupied (75 percent occupancy) with about 400 residents (1.45 persons-per-household). The following information, provided by the project sponsor in October 2003, describes the tenants according to their length of occupancy:

- 50 tenants have occupied 36 units for 10 or more years;
- 66 tenants have occupied 48 units for 5 to 9 years;
- 18 tenants have occupied 14 units for 4 to 5 years;
- 14 tenants have occupied 9 units for 3 to 4 years;
- 5 tenants have occupied 4 units for 2 to 3 years; and
- 251 tenants have occupied 164 units for less than 2 years.

The high proportion (two-thirds) of units occupied for fewer than two years is consistent with the high degree of turnover reported by the project sponsor for prior years. The owner has ceased re-renting units which become vacant. Businesses at the project site currently employ about 50 workers, including those associated with the on-site restaurant, building maintenance, leasing office, and parking.

IMPACTS

SIGNIFICANCE CRITERIA

The *CEQA Guidelines* state that effects analyzed under CEQA must be related to physical change in the environment (Section 15358(b)). Economic and social effects are not considered environmental effects under CEQA. These effects need to be considered in EIRs only if they would lead to an environmental effect.

According to the *CEQA Guidelines*, a project could have a significant effect on the environment if it would “displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere;” or if it would “displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.”

PROJECT EFFECTS

Population Changes

As described in Section II, Project Description, the proposed project would replace existing residential, restaurant, and parking uses with residential and commercial development. The proposed project would include 1,900 residential units, consisting of about 1,100 studio and 800 one-bedroom apartments, a net increase of 1,523 units at the site. 360 units would be rent-controlled, and 12 percent of the other 1,540 new units, or 185 units, would be designated affordable pursuant to the standards of Section 315 of the *Planning Code*.

At full occupancy, the project would provide housing for about 2,888 residents, based on an average household size of 1.52 persons-per-household (*2000 Census* Tract 176.01), resulting in a net increase of about 2,313 residents on site. Based on the citywide average household size of 2.3 persons-per-household (*2000 Census*), the total estimated residential population at the project could be as much as 6,642. It is not likely that the higher population estimate would be reached given the proposed mix of studio and one-bedroom units.

This increase in housing units and resident population would represent a large increase at the project site, but the relative increase in residential density at the site would not be substantial. Future residents of the property would largely come from the existing residential population of San Francisco and surrounding Bay Area cities; the vacancies caused by relocations to the proposed project would be expected to be rapidly re-occupied given the regional demand for housing, and no noticeable effect on local or regional vacancy rates would occur as a result.

From 1990 to 2000, the number of new housing units completed citywide ranged from a low of about 380 units (1993) to a high of about 2,065 units (1990) per year. The citywide annual

average over that 11-year period was about 1,130 units per year.¹ Viewed in a citywide context, the increase in housing units and resident population associated with the proposed project would represent less than five percent in housing and population growth in San Francisco by 2020.²

In March 2001, the Association of Bay Area Governments (ABAG) projected regional needs in the *Regional Housing Needs Determination (RHND)* 1999 to 2006 allocation. The projected need of San Francisco for 2006 was 20,372 dwelling units, or an average yearly need of 2,716 net new dwelling units. The proposed project, over its multi-year development schedule, would add about 1,523 net new residential units to the City's housing stock. The proposed housing would help address the City's broader needs for additional housing in a citywide context, in which job growth and in-migration outpace the provision of new housing.

As noted in the *Mid-Market Redevelopment Plan EIR*, a large portion of housing growth is projected in the Mid-Market area. The proposed *Mid-Market Redevelopment Plan* projects that about 3,200 new residential units would be constructed in the Mid-Market area, which includes the project site.³ The proposed project, at 1,900 units, involving a net increase of 1,523 units on the site, would represent about half the planned residential growth in the Mid-Market area.

Displacement of Housing or Residents

The project would avoid the displacement of the residents of the existing Trinity Plaza Apartments. The project would proceed in phases; the first phase would consist of the construction of Building A (440 units) with that portion of the parking garage below. The existing Trinity Plaza Apartments would not be demolished and would not displace residents during construction. Upon completion of Building A, the existing residents, if they so choose, could move into the new building with the opportunity to retain their current rent (the project sponsor would provide 360 rent-controlled units to replace the existing rent-controlled units on

¹ San Francisco Planning Department, *Final Draft for Public Review-Housing Element Revision of the General Plan*, p. 25. February 10, 2003.

² Association of Bay Area Governments, Projections 2000.

³ San Francisco Redevelopment Agency and the City and County of San Francisco Planning Department, *Mid-Market Redevelopment Plan Final EIR*, 2002.0805E, certified September 28, 2002, p.187.

a one-to-one basis). After the residents have moved into Building A, the existing Trinity Plaza Apartments would then be demolished; Buildings B and C would then be constructed.

Existing tenants who choose to seek relocation elsewhere are not likely to induce the construction of new housing in San Francisco or elsewhere in the Bay Area. The slight increase in demand that might result from project implementation, particularly in an area where there is already strong demand for affordable and market rate housing, would have no noticeable effect on housing development patterns.

Employment

As noted above, about 50 people currently work at the project site. Upon completion, approximately 75 people would be employed at the project site in retail/restaurant sales, building maintenance, management, security, and parking positions. Overall, the proposed project would not have a significant adverse impact on housing demand or displacement that would require development of replacement housing.

H. GROWTH INDUCEMENT

A project may foster spatial, economic, or population growth in a geographic area and would be considered growth inducing if it meets any one of the following criteria: removal of an impediment to growth; economic expansion or growth; establishment of a precedent setting action, innovation, or change; or development of or encroachment on an isolated area of open space.

Growth is an inherent impact of the proposed 1177 Market Street Project. The proposed project would increase the density of residential and commercial development at the project site over existing conditions: the number of dwelling units would increase from 377 to about 1,900, and the retail commercial space would increase from about 12,500 sq. ft. to approximately 60,000 sq. ft. The project would be expected to increase population and housing growth in the project area which would lead to local economic benefits.

With additional housing construction anticipated with the proposed project and with other approved and proposed residential developments, the project would contribute to the overall increase in City housing stock. The project area would continue to provide low-cost housing, and new housing proposed in the vicinity would include affordable options. With this anticipated new housing construction, the project area would increase from contributing about 0.5 percent of the City's housing stock up to about 1.25 percent.¹ However, implementation of the proposed project would not represent a significant growth in employment or housing in the context of the City as a whole.

This added development would improve the underutilized Mid-Market area and offer businesses and residents opportunities to be located within a developed area of the City rather than shifting this future growth to areas outside of the City. The proposed project is located in an urban area that is already serviced by the City's municipal infrastructure and public services. No expansion to municipal infrastructure or public services not already under consideration or included with the project would be required to accommodate new

¹ Ibid.

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development directly or indirectly induced by the proposed project. The proposed project would not result in development of new public services that would accommodate significant further growth. Therefore, because none of the four growth-inducing criteria described above would occur as a result of the proposed project, the project is not considered to be growth inducing.

IV. MITIGATION AND IMPROVEMENT MEASURES

In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the project. Some of these measures have been, or would be, adopted by the project sponsor and, therefore, are proposed as part of the project; some are under consideration. Improvement measures are suggested to reduce adverse environmental effects not otherwise identified as significant environmental impacts. Implementation of some measures may be the responsibility of public agencies.

Each mitigation measure and its status are discussed below. Measures from the Initial Study (see Appendix A) proposed as part of the project are indicated with an asterisk (*) and follow mitigation measures of topics discussed in the EIR. Mitigation measures identified in this EIR and in the Initial Study would be required by decision makers as conditions of project approval unless they are demonstrated to be infeasible based on substantial evidence in the record.

A. WIND

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

Interior plazas within the proposed project have winds generally exceeding the pedestrian comfort criterion. Interior plazas and walkways should be landscaped to reduce wind and improve usability.

- A.1 Use porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) when possible and design wind sheltering elements high enough to shelter the interior plazas.
- A.2 Plant street trees along the Eighth Street frontage of the project to reduce the cumulative impacts affecting Eighth Street. Mature landscaping can reduce wind speeds up to 2 mph and can reduce occurrence of hazardous winds.

B. TRANSPORTATION

MITIGATION MEASURES

Year 2020 Cumulative Conditions

The proposed project would have a significant future cumulative traffic impact at the intersection of Mission Street/Eighth Street due to the project's contribution to the critical southbound left turn movement.

- B.1 Adjust the signal timing of the intersection such that three seconds of green time is deducted from the east-west approach (Mission Street) and added to the southbound approach (Eighth Street) to potentially mitigate this impact. The subsequent LOS for the intersection would be LOS D with a delay of 54.8 seconds. It should be noted that any change to the signal timing along Mission Street could potentially affect signal progression along the corridor and interfere with MUNI operations on this Transit Preferential street. A feasibility study would be required prior to implementation of this cumulative mitigation measure. If adjusting the signal timing is found infeasible, the project would have an unavoidable significant impact for the future cumulative condition.

The westbound approach to the intersection of Stevenson Street/Seventh Street would operate at LOS E under future cumulative conditions. This poor LOS would be due primarily to the difficult entry onto Seventh Street from Stevenson Street during the PM peak hour.

- B.2 "Keep Clear" would be painted in the center of the intersection of Stevenson Street/Seventh Street to allow vehicles entering Seventh Street a sufficient gap.

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

Existing-Plus-Project Conditions

Parking Improvement Measures

The project would not meet its estimated residential parking demand of 1,970 spaces based on calculations using the parking demand rates in the *SF Guidelines*. The project would provide 1,200 parking spaces for the residential units and would thus result in an unmet demand of approximately 770 spaces.

- B.3 The proposed project could potentially reduce parking demand by implementing Transportation Demand Management strategies including City CarShare, CommuterChex, and RIDES.
- B.4 The project sponsor would provide “Full” electronic message signs to the public to indicate if the parking garage is closed or unavailable. Clear indication to public on parking garage occupancy would avoid queuing and sidewalk blockage in front of the garage entrance.

Construction Improvement Measures

Although construction impacts would be temporary and of short-term duration, the following improvement measures would lessen their impacts.

- B.5 Any construction traffic occurring between 7:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:00 p.m. would coincide with peak-hour traffic and could impede traffic flow. The impact of lane closures and construction traffic would decrease the capacity of streets and slow the movement of traffic (including MUNI buses). To the extent possible for future projects in the study area, truck movements should be limited to the hours between 9:00 a.m. and 3:30 p.m. to minimize disruption of the general traffic flow on adjacent streets.

The project sponsor and construction contractor(s) would meet with the Traffic Engineering Division of the Department of Parking and Traffic, the Fire Department, and the Planning Department to determine feasible traffic mitigation measures to reduce traffic congestion and pedestrian circulation impacts during construction of the project. In addition, to ensure that construction activities would not impact MUNI bus stops or routes in the area, the project sponsor should coordinate with MUNI’s Chief Inspector prior to construction. In addition, the project sponsors of the proposed project, the 1125 Market Project and the 1160 Mission Project should work together with DPW, DPT, and MUNI to coordinate their construction schedules with that of the Federal Building so that disruptions to vehicle and pedestrian traffic are minimized.

C. NOISE

MITIGATION MEASURES AS PART OF THE PROPOSED PROJECT

- *C.1 In the event that pile driving becomes necessary for the project foundation, the project sponsor shall require that its geotechnical engineering contractor conduct a pre-construction assessment of existing subsurface conditions and the structural integrity of nearby buildings subject to pile driving impacts prior to receiving a building permit. If recommended by the geotechnical engineer, for structures or facilities within 50 feet of pile driving, the project sponsor shall require ground-borne vibration monitoring of nearby structures. The project sponsor shall also require its construction contractor to use noise-reducing pile driving techniques if nearby structures are subject to pile

driving noise and vibration. These techniques are pre-drilling pile holes (if feasible, based on soils) to the maximum feasible depth, installing intake and exhaust mufflers on pile driving equipment, vibrating piles into place when feasible, and installing shrouds around the pile driving hammer where feasible.

- *C.2 The project sponsor shall require project construction contractor(s) to pre-drill holes to the maximum depth feasible on the basis of soil conditions. Contractors shall be required to use construction equipment with state-of-the-art noise shielding and muffling devices.

D. AIR QUALITY

MITIGATION MEASURES AS PART OF THE PROPOSED PROJECT

- *D.1 The project sponsor shall require the contractor(s) to spray the site with water during demolition, excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand, or other such material; and sweep surrounding streets during demolition, excavation, and construction at least once per day to reduce particulate emissions.
- *D.2 Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor shall require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

E. GEOLOGY/TOPOGRAPHY

MITIGATION MEASURES AS PART OF THE PROPOSED PROJECT

- *E.1 One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The project sponsor and its contractor(s) shall follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponsor shall ensure that the construction contractor(s) conducts a pre-construction survey of existing conditions and monitors the adjacent buildings for damage during construction, if recommended by the geotechnical engineer.
- *E.2 As dewatering would be necessary, the project sponsor and its contractor(s) shall follow the geotechnical engineers' recommendations in the geotechnical report

regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering. The Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments shall be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge shall be used to halt this settlement. The project sponsor shall delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street shall be born by the project sponsor.

- *E.3 The project sponsor and its contractor(s) shall follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems shall be modified as necessary in the event that substantial movements are detected.

F. WATER QUALITY

MITIGATION MEASURES AS PART OF THE PROPOSED PROJECT

- *F.1 As dewatering would be necessary, the project sponsor shall follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.
- *F.2 As dewatering would be necessary, groundwater pumped from the site shall be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.
- *F.3 The project sponsor shall require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

G. HAZARDOUS MATERIALS

MITIGATION MEASURES AS PART OF THE PROPOSED PROJECT

- *G.1 The project sponsor shall implement the Voluntary Cleanup Agreement with DTSC. If required by DTSC, the project sponsor shall implement the soil sampling procedures of the Sampling and Analysis Plan (SAP), subject to review and approval of DTSC, including soil borings, sampling protocol, classification, and analysis at a certified hazardous materials laboratory, to determine the level of contamination. Upon

completion of activities contemplated by the Voluntary Cleanup Agreement, the project sponsor will either prepare a site investigation report presenting the investigation methodology employed, findings, and conclusions for the subject site or provide certification from DTSC that it is satisfied with respect to the previously unresolved case. Any conclusions and/or recommendations from DTSC or the site investigation report shall be implemented by the project sponsor during project demolition and construction efforts if not already completed prior to commencement of construction activities.

- *G.2 At the time of excavation, excavated soils will be tested and classified and treated and/or reused on-site and/or disposed of at an appropriate facility in accordance with determinations made and approved by the San Francisco Department of Public Health (DPH) and/or a State agency in accordance with a Soil Excavation Plan (SEP) to be approved by DPH or the designated State agency. Reuse of contaminated soils on-site may require a risk assessment to determine potential effects to future site occupants and/or occasional utility maintenance workers. The project sponsor shall implement those measures set forth in the Soil Excavation Plan dated March 20, 2003, regarding soil excavation.
- *G.3 The project sponsor shall comply with BAAQMD regulations and all applicable laws with respect to the abatement of asbestos-containing material (ACM) and shall implement those recommendations contained in the Phase I Environmental Site Assessment for the project prepared by PSI dated September 24, 2002 for development of an Operations and Maintenance Program that meets current EPA and OSHA regulations for monitoring of ACM and for isolation and abatement of ACM by a licensed asbestos contractor.

H. CULTURAL RESOURCES

MITIGATION MEASURES AS PART OF THE PROPOSED PROJECT

Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources.

- *H.1 The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant shall implement the ARD/TP. The consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant's work shall be conducted in accordance with this measure and with the requirements of the project archaeological research design and treatment plan (*Archeo-Tec, Archaeological Research Design/Treatment Plan for the Trinity Plaza Apartments Project*, April 21, 2003) at the direction of the Environmental Review Officer (ERO). In instances of any

inconsistency between the requirements of the project archeological research design and treatment plan and of this archaeological mitigation measure, the requirement of the latter shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval a final archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- The proposed project shall be redesigned so as to avoid any adverse effect on the significant archaeological resource; or
- A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that the archaeological monitoring program shall be implemented, the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils-disturbing activities commencing. The ERO in consultation with the archaeological

consultant shall determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential logical resources and to their depositional context;

- The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;
- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;
- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accordance with the archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO have met and consulted on the scope of the ADRP prior to preparation. The ADRP identifies how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP identifies what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the

portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP includes the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at

risk any archaeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California logical Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three (3) copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

V. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

In accordance with Section 21100 (b)(2)(A) of the *California Environmental Quality Act (CEQA)*, and Section 15126.2(b) of the State *CEQA Guidelines*, this section identifies significant impacts that could not be eliminated or reduced to an insignificant level by implementing mitigation measures included as part of the project or by other mitigation measures that could be implemented, identified in Section IV, Mitigation Measures and Improvement Measures. This section is subject to final determination by the San Francisco Planning Commission as part of the certification process for the EIR. If necessary, this section will be revised in the Final EIR to reflect the findings of the Commission.

As discussed in Section III, Environmental Setting and Impacts; and Section IV, Mitigation Measures and Improvement Measures, implementation of the proposed project may result in unavoidable significant adverse effects. The proposed project would have a significant future cumulative traffic impact at the intersection of Mission Street/Eighth Street due to the project's contribution to the critical southbound left turn movement. Adjusting the signal timing of the intersection such that three seconds of green time is deducted from the east-west approach (Mission Street) and added to the southbound approach (Eighth Street) would potentially mitigate this impact. The subsequent LOS for the intersection would be LOS D with a delay of 54.8 seconds. It should be noted that any change to the signal timing along Mission Street could potentially affect signal progression along the corridor and interfere with MUNI operations on this Transit Preferential Street. A feasibility study would be required prior to implementation of this cumulative mitigation measure. If adjusting the signal timing is found infeasible, the project would have an unavoidable significant impact for the future cumulative condition.

VI. ALTERNATIVES TO THE PROPOSED PROJECT

This section identifies alternatives to the proposed project and discusses potential environmental impacts associated with these alternatives. Project decision-makers could approve an alternative instead of the proposed project, if that alternative would substantially reduce or eliminate significant impacts of the project and is determined feasible. The determination of feasibility will be made by project decision-makers on the basis of substantial evidence in the record, which shall include, but not be limited to, information presented in the EIR and in comments received on the Draft EIR.

Three alternatives are evaluated in this section: Alternative A: No Project; Alternative B: Reduced Program; and Alternative C: Retail Only. Alternatives B and C were formulated to respond to the potential cumulative traffic impacts of the proposed project. Any of the alternatives could be implemented under City controls but would require many of the same approvals as the proposed project.

Other alternatives were considered by the project sponsor, but ultimately rejected. For example, the project sponsor considered evaluating a Residential Only alternative that would involve building fewer residential units on the project site. However, even if the retail and restaurant components were reduced, or eliminated, there would not be a substantial reduction in the total trips and the project's potentially significant cumulative transportation impacts would not be avoided or substantially lessened. CEQA only requires that an EIR consider alternatives that would avoid or substantially lessen any of the significant effects of the project. (CEQA Guidelines Section 15126.6(a).) In addition, CEQA provides that for projects providing housing, a public agency may "not reduce the proposed number of housing units... as a project alternative for a particular significant effect on the environment if it determines that there is another feasible . . . project alternative that would provide a comparable level of mitigation." (CEQA Guidelines, Public Resources Code Section 21159.26.) Here, the three alternatives evaluated in the EIR provide a higher degree of mitigation with respect to the project's potential impacts than a reduced housing alternative. For these reasons, a reduced housing alternative is not evaluated in this EIR.

The project sponsor does not own any other sites that could accommodate the proposed project. No alternative sites have been identified within downtown San Francisco where the project could be constructed and meet the project sponsors' objectives, and where the project's environmental effects would be substantially lessened or avoided. Therefore, an off-site alternative is not considered.

A. ALTERNATIVE A: NO PROJECT

DESCRIPTION

The No Project Alternative would entail no physical land use changes at the project site. The Trinity Plaza Apartments complex would not be demolished, and no new residential, commercial or open space would be developed. This alternative would not preclude future proposals for redevelopment of the project site, including similar development envisioned in the proposed *Mid-Market Redevelopment Plan*.

IMPACTS

If the No Project Alternative were implemented, none of the impacts or benefits associated with the proposed project would occur. The existing Trinity Plaza Apartments would not be demolished, and the 377 dwelling units contained therein would be retained on site.

The environmental characteristics of this alternative would generally be as described in the environmental setting sections of Section III. Land uses, urban design, visual quality, shadow and wind effects, circulation, parking, and other physical characteristics of the site would not immediately change, except as a result of nearby development. Population, housing, and employment characteristics at the existing site could change under this alternative, as a result of market forces and implementation of the proposed *Mid-Market Redevelopment Plan*. This alternative would be inconsistent with key goals of the *Downtown Plan* and the proposed *Mid-Market Redevelopment Plan*; these Plans focus on the creation of a more intense mixed-use district with an increased ratio of residential development to other types of land uses, and the elimination of physical and economic blight.

B. ALTERNATIVE B: REDUCED PROGRAM

DESCRIPTION

The Reduced Program Alternative is intended to respond to the potential traffic impacts of the proposed project. Under this alternative, the project site would be developed in a manner similar to the proposed project (described in Section II, Project Description), although at one-fourth of its proposed size (for a total of 485,750 sq. ft. compared to 1,943,000 sq. ft. for the proposed project). The following notable differences would also apply:

- The residential component would be reduced from 1,523 net new units to 381 net new units in one building instead of three, for a total of 758 units versus the proposed 1,900 units. The basic architectural design and locations of support facilities (lobbies, management offices, etc.) would remain the same. The existing 337-unit building would remain and the new development would be built at the southern portion of the site with an internal plaza at the center of the site.
- The proposed 12,000 sq. ft. restaurant would be reduced to 3,000 sq. ft.
- The retail component would be 12,000 sq. ft. compared to up to 48,000 sq. ft. with the proposed project.
- The number of new parking spaces provided on site would decrease by approximately 1,088 spaces from the proposed development program, resulting in about 362 parking spaces. Approximately 300 of the new parking spaces would be for residents only and 62 would be open to the public. This alternative also represents a reduction of 88 parking spaces from the 450 parking spaces currently at the site.

IMPACTS

The Reduced Program Alternative would not meet the goals of the proposed *Mid-Market Redevelopment Plan* and the *Market and Octavia Plan*. This alternative would have characteristics similar to those of the proposed project, and its potential environmental effects—except as noted below—would be similar as described for the project in Section III, Environmental Setting and Impacts, and the Initial Study, Appendix A. Mitigation and improvement measures described in Section IV. would also apply to this alternative. Differences between the proposed project and this alternative, with respect to effects on local transportation, wind, and shadows, are discussed below.

Traffic

With the Reduced Program Alternative, approximately 11 vehicles could be added at the Eighth Street and Mission Street intersection during the PM peak hour and still maintain the existing LOS D (without enforcement of the bus only lane), compared to 43 vehicles with the proposed project.

All of the study intersections that currently operate at LOS D or better would continue operating at LOS D or better with no significant changes to the delays at any of the intersections (except for Mission Street/Eighth Street intersection, where, with full compliance of the bus only lane, the intersection would operate at LOS E).

Therefore, the Reduced Program Alternative would not have a significant adverse effect on intersection LOS conditions. In contrast, the proposed project would change the Mission Street/Eighth Street intersection LOS from D to E, and would be considered to have a substantial contribution to a cumulative LOS E, with increased delay. Section IV, Mitigation Measures, Measure B.1, identifies signal timing changes at the Eighth Street/Mission Street intersection that maintain LOS D with project and cumulative conditions.

Wind

Under the Reduced Program Alternative, a new three-story, mixed-use building would be constructed. That building would not be of sufficient height to block wind currents encountering the project site (based on a review of wind tunnel studies conducted for the proposed project). Therefore, this alternative would not substantially change wind conditions in the project vicinity.

Shadow

As with the proposed project, the Reduced Program Alternative would not cause substantial net new shading on the public open space in the project vicinity covered by *Planning Code* Section 295 (Civic Center Plaza) at any time of year from one hour after sunrise to one hour before sunset. Nor would the project add shade to Fulton Street Mall or the United Nations Plaza. The shadows cast on Market Street and north of Market Street, as described in Section

III.D, Shadows, would be substantially reduced because the Reduced Program Alternative development would be 23 stories shorter than the proposed project.

C. ALTERNATIVE C: RETAIL ONLY

DESCRIPTION

The Retail Only Alternative would involve adding a new building with 21,600 sq. ft. of retail space and 5,400 sq. ft. of restaurant space to the project site, without demolishing the existing 377 residential units. The existing, approximately 7,100 sq. ft. restaurant would also remain. The Retail Only Alternative would represent a 45-percent reduction in total retail floor area compared to the proposed project, which would add up to 48,000 sq. ft. of retail and approximately 12,000 sq. ft. of restaurant space to the site. The Retail Only Alternative building would be two stories high, and would front Eighth and Mission Streets.

IMPACTS

The Retail Only Alternative would retain the existing housing and restaurant use at the proposed project site and would add a single, two-story building that would expand retail space in the Mid-Market area. With this alternative, none of the impacts associated with the proposed project would occur. The decision-making agency will determine the feasibility of the Retail Only Alternative and whether it serves the goals of the proposed project.

The environmental characteristics of this alternative would generally be as described in the environmental setting sections of Section III. Urban design, visual quality, shadow and wind effects, circulation, parking, and other physical characteristics of the site would not change as a result of the alternative, but rather as a result of other, nearby development. Population, housing, and employment characteristics at the existing site could change under this alternative, as a result of market forces and implementation of the proposed Mid-Market Redevelopment Plan. This alternative would be inconsistent with key goals of the Downtown Plan and the proposed Mid-Market Redevelopment Plan; these Plans focus on the creation of a more intense mixed-use district with an increased ratio of residential development to other types of land uses, and the elimination of physical and economic blight. The Retail Only

Alternative would have the advantage of allowing for some local-serving retail uses on the site.

Like the Reduced Program Alternative, the Retail Only Alternative would add only about 11 vehicles to the Eighth and Mission Streets intersection (compared to 43 vehicles with the proposed project) to eliminate the traffic impact identified in Section III. E. While the Retail Only Alternative is more of a borderline condition for traffic impacts than the Reduced Program Alternative, all of the study intersections that currently operate at LOS D or better would still operate at LOS D or better with no significant changes to the delays at any of the intersections, and therefore, this alternative would not have a significant adverse effect on intersection LOS conditions. The decision-making agency will determine the feasibility of the Retail Only Alternative and whether it serves the goals of the proposed project.

D. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Both Section III, Environmental Setting and Impacts, and the Initial Study, Appendix A, prepared for the proposed project, determined that impacts in the following issue areas would be less than significant: wind, visual quality, shadows, growth inducement, air quality, land use, population and housing, noise, utilities and public services, biology, geology and topography, water, energy and natural resources, hazards, and cultural resources. Impacts in those issue areas would also be less than significant with implementation of the Reduced Program and Retail Only Alternatives, because the alternatives would involve a similar area of disturbance and would result in some of the same increases in site use by residents. Based on this preliminary analysis, the environmentally superior alternative would be the Reduced Program Alternative from a cumulative traffic perspective.

VII. DRAFT EIR DISTRIBUTION LIST

Copies of this Draft EIR or Notices of Availability of the Draft EIR were mailed or delivered to the following public agencies, organizations, and individuals. In addition, Notices of Availability were sent to tenants at the project site, adjacent property owners and tenants, and other interested parties.

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VII. Draft EIR Distribution List

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NEARBY PROPERTY OWNERS

Property owners and occupants in the project vicinity were either sent the Draft EIR or Notices of Availability of the Draft EIR based on requests to the Planning Department or participation in the public scoping process for the project.

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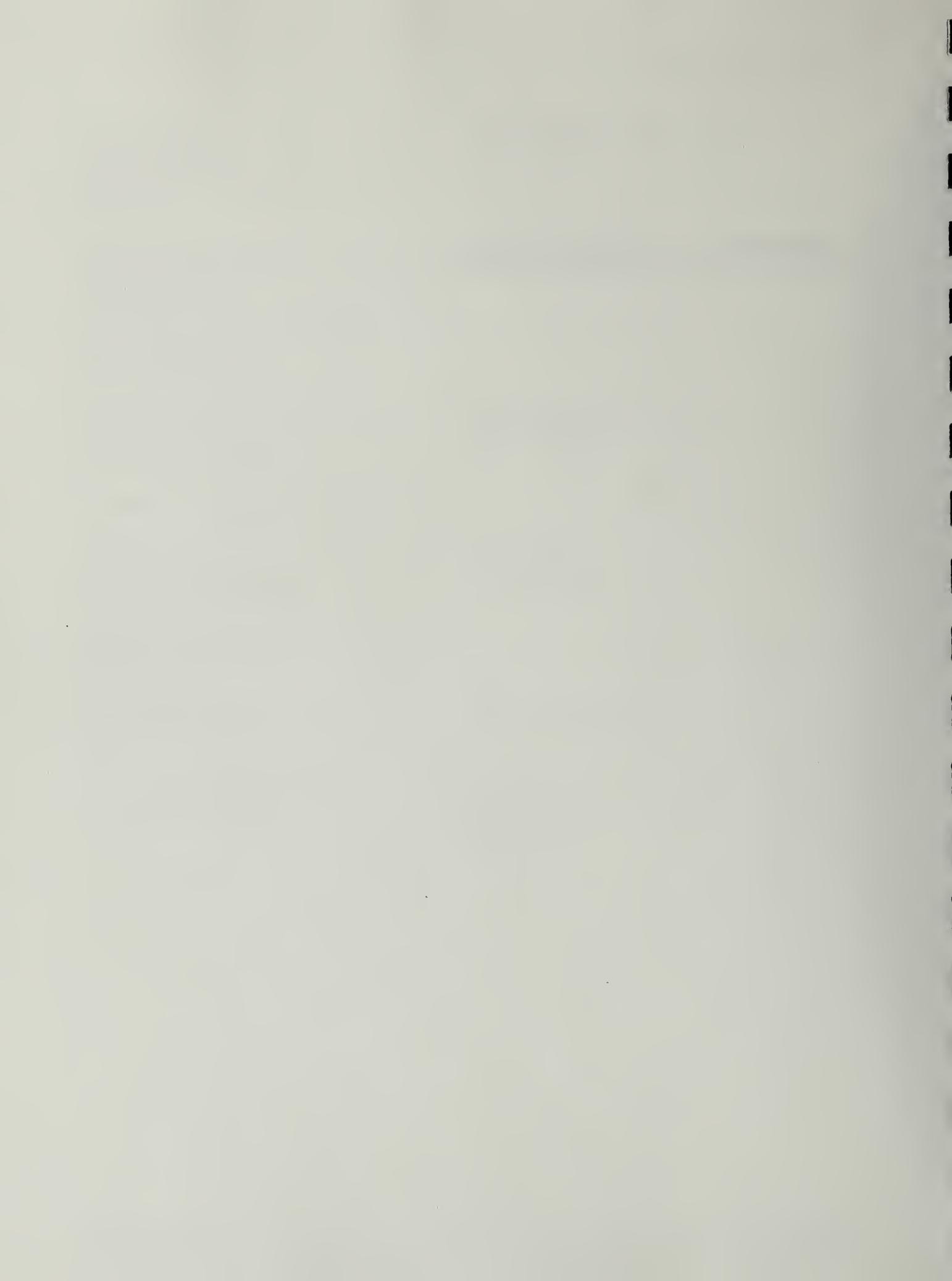
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APPENDIX A: INITIAL STUDY



INITIAL STUDY

2002.1179E: 1177 Market Street Project

I. PROJECT DESCRIPTION

The project site is located at 1169 Market Street and is bounded by Market Street to the north, Eighth Street to the west and Mission Street to the south in the greater Downtown San Francisco area. The project site occupies Assessor's Block 3702, Lots 39, 51, 52, and 53, with an area of 176,245 square feet (sq.ft.) or about four acres (see Figure 1, Project Location, p. 2). The project site is in the C-3-G (Downtown-General Commercial) Use District and in the 120-X (along Market Street), 150-X (in the middle portion) and 240-S (in the southern portion) Height and Bulk Districts. The proposed project would replace an existing seven-story apartment building (Trinity Plaza Apartments) which contains 377 residential rental units with surface and below-grade parking for approximately 450 vehicles. The proposed project would include five residential apartment buildings, ranging from 12 to 24 stories or approximately 118 to 238 feet in height, with approximately 1,579,400 gross square feet (gsf) (Figure 2, Site Plan, p. 3). The proposed buildings would include approximately 1,410 residential rental units (1,119 studios, 118 one-bedroom units, and 173 two-bedroom units), approximately 25,200 sq.ft. of retail uses, and parking for approximately 1,350 vehicles.¹ Twelve percent or 169 of the residential units would be affordable pursuant to the standards of Section 315 of the Planning Code. All retail uses would be located at street level along the Market, Mission, and Eighth Street frontages. Table 1 summarizes the project description.

TABLE 1
PROJECT DESCRIPTION

Category	Project Totals
Residential	1,000,200 sq.ft
Parking & Loading, Mech. & Storage	554,000 sq.ft
TOTAL	Approx. 1,579,400 sq.ft.
Dwelling Units (1,119 studios, 118 one-bedroom, 173 two-bedroom)	1,410
Parking Spaces	1,350
Loading Spaces	7 (including 4 service vehicle spaces)
Height of Buildings	118-238 feet
Number of Stories	12 - 24
Number of Buildings	5, with 4 above a one- to two-story base

Source: Arquitectonica, May 2003



Source: Clement Designs, EIP Associates

1177 Market Street Project

FIGURE 1: PROJECT LOCATION

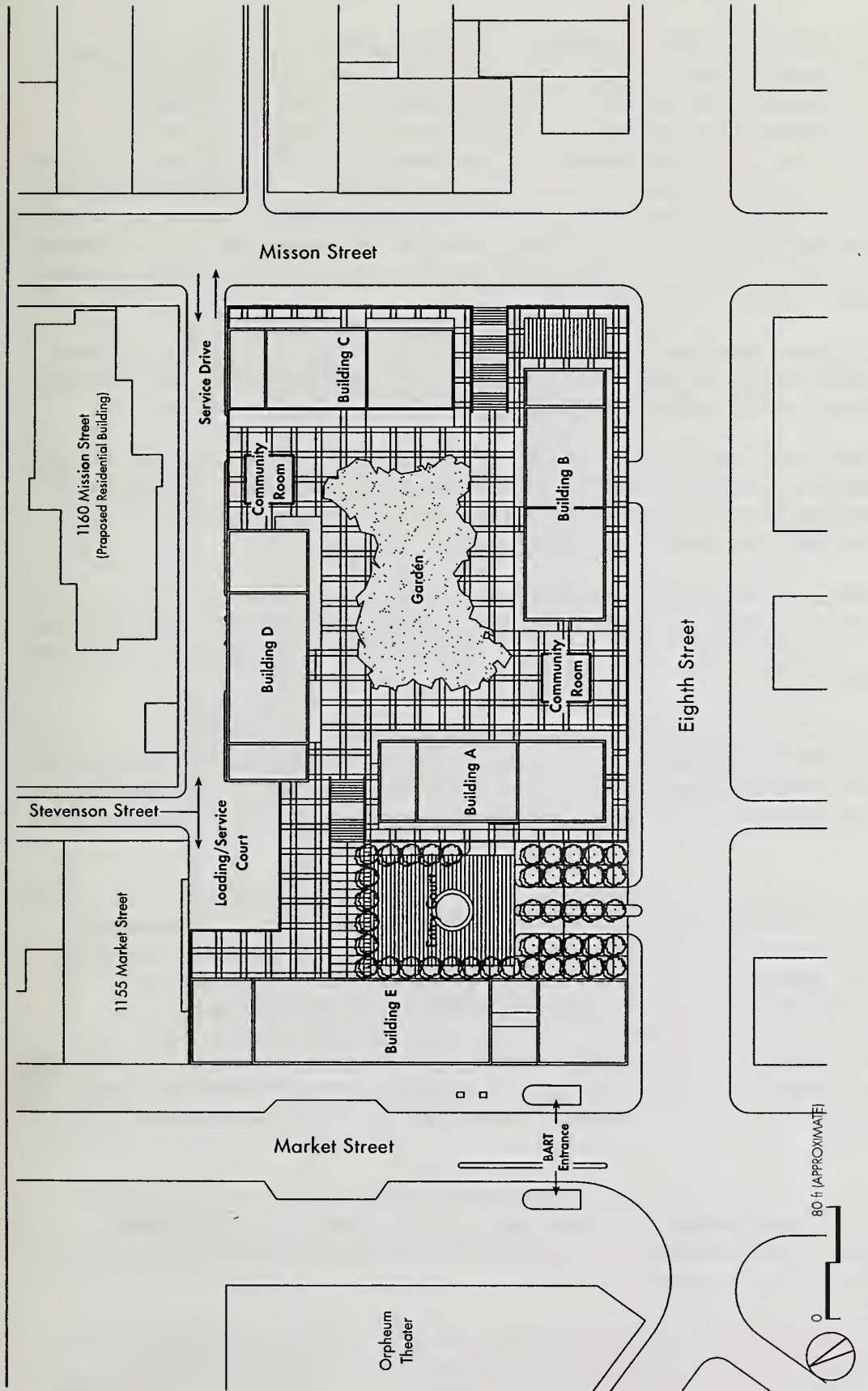


FIGURE 2: SITE PLAN

Source: Arquitectonica

Residential area would include lobbies, leasing and management offices, and laundry and community rooms (including fitness facilities) for residents located primarily on the ground floor and first basement levels. Landscaped open space would total approximately 97,300 sq. ft., including a landscaped central courtyard and landscaped open space around the buildings of approximately 71,150 sq. ft. at the plaza level for the residents' use, plus about 26,150 sq. ft. in the entry court open to the public which would serve both pedestrians and limited vehicular use. Building A would extend approximately 180 feet along the southern edge of the entry court from Eighth Street to the Market Street passageway and would be entirely in residential uses, with the building management offices and a lobby at the first level. It would have a maximum height of 177 feet to the roof, with architectural projections rising to a height of 197 feet.

Building B would extend about 200 feet south along Eighth Street between Building A and Mission Street and would be entirely residential with lobbies at the first two levels. It would have a maximum height of 177 feet to the roof, with architectural projections rising to a height of 218 feet.

Building C would extend about 180 feet along Mission Street to the service driveway on the east end of the site and would have lobbies at the first two levels and retail use along Mission Street, with the floors above dedicated to residential uses. It would have a maximum height of 238 feet to the roof, with architectural projections rising to a height of 259 feet.

Building D would extend about 180 feet along the service driveway on the eastern side of the site from the loading/service court to the south and would consist entirely of residential uses with lobbies at the first two levels. It would have a maximum height of 219 feet to the roof with architectural projections rising to a height of 240 feet.

Building E would extend along the entire project frontage on Market Street for approximately 320 feet, with retail uses, a lobby and a passageway from Market Street to the interior courts and other buildings at ground level on Market Street and the floors above dedicated to residential uses. It would have a maximum height of approximately 118 feet to the roof with architectural projections rising to a height of 129 feet.

The ground floor level (at grade with Market Street) would include the retail space on Market Street, the passageway from Market Street to the remainder of the project, the leasing and management offices, the entry court and loading/service court, lobbies for Buildings A, D and E and the upper parking level (see Figure 4, p. 6). The plaza level would include about 71,150 square feet of landscaped open space for resident use, the first level of residential units, upper lobbies for Buildings B, C and D and two free-standing community rooms for resident use (see Figure 5, p. 7). Table 2 provides residential uses by building. Parking Level P-1 (at grade with Mission Street) would include parking, some loading, the lower lobbies for Buildings B and C and the retail space along Mission Street. Figures 6-8, pp. 8-10 illustrate elevations and typical floor plans on Market, Eighth and Mission Streets.

Retail uses would be located along Market, Mission and a portion of Eighth Streets (see Figures 2 and 3, pp. 3 and 5). Most residential amenities would be on the ground floor and plaza levels, including the leasing office, laundries and primary lobby areas with elevators to all levels, as well as mechanical support and storage rooms.

The conceptual design of the base element and towers would be pre-cast concrete and glass wall divisions in a geometric pattern, punctuated by deep recessed voids and other forms of façade articulation. The structures would be a reinforced concrete frame on a concrete mat slab foundation.

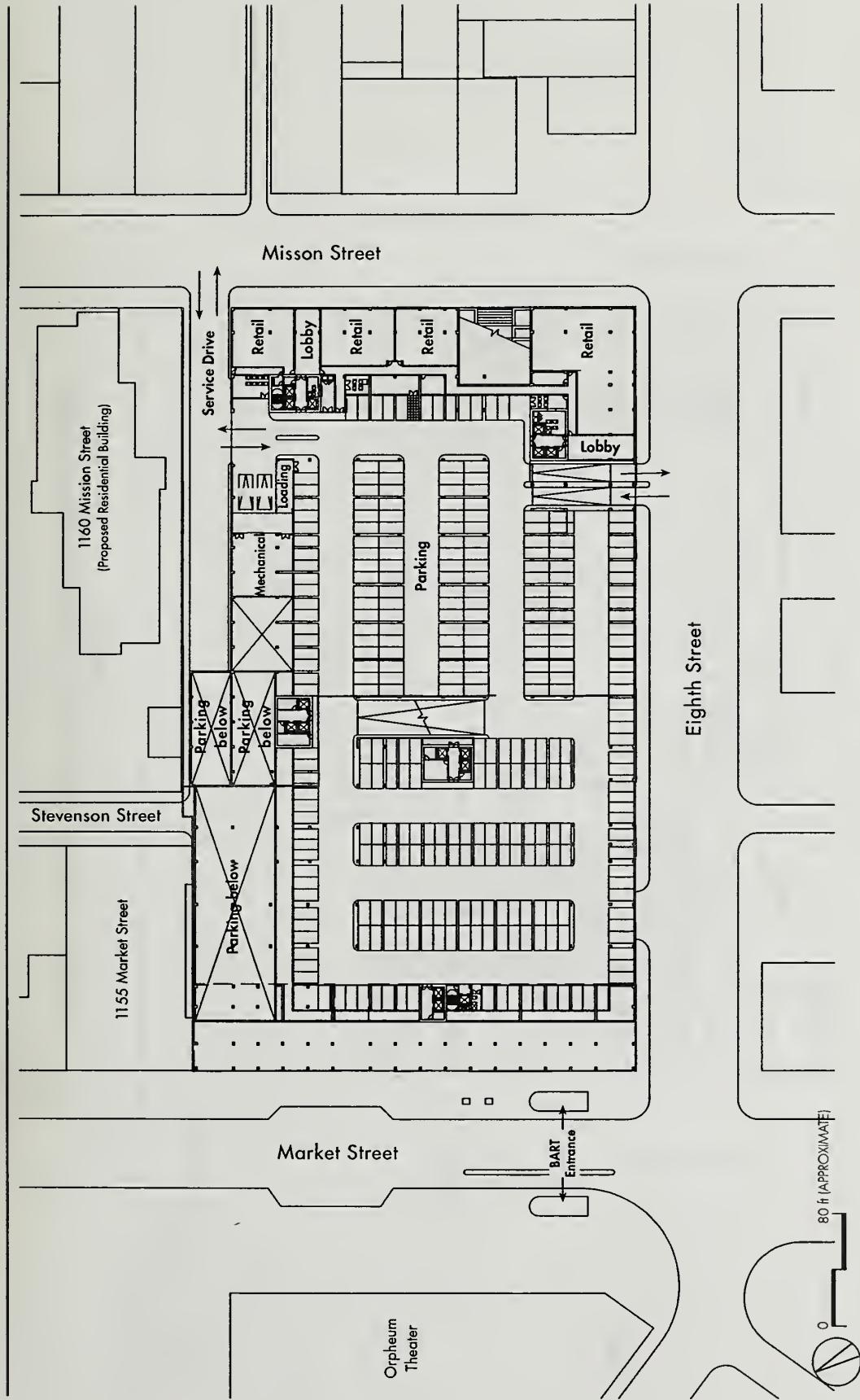


FIGURE 3: PARKING P-1 LEVEL FLOOR PLAN (AT MISSION STREET GRADE)

1177 Market Street Project

Source: Arjectorica

CASE NO. 2002.1179E

1177 Market Street

A-5

July 5, 2003

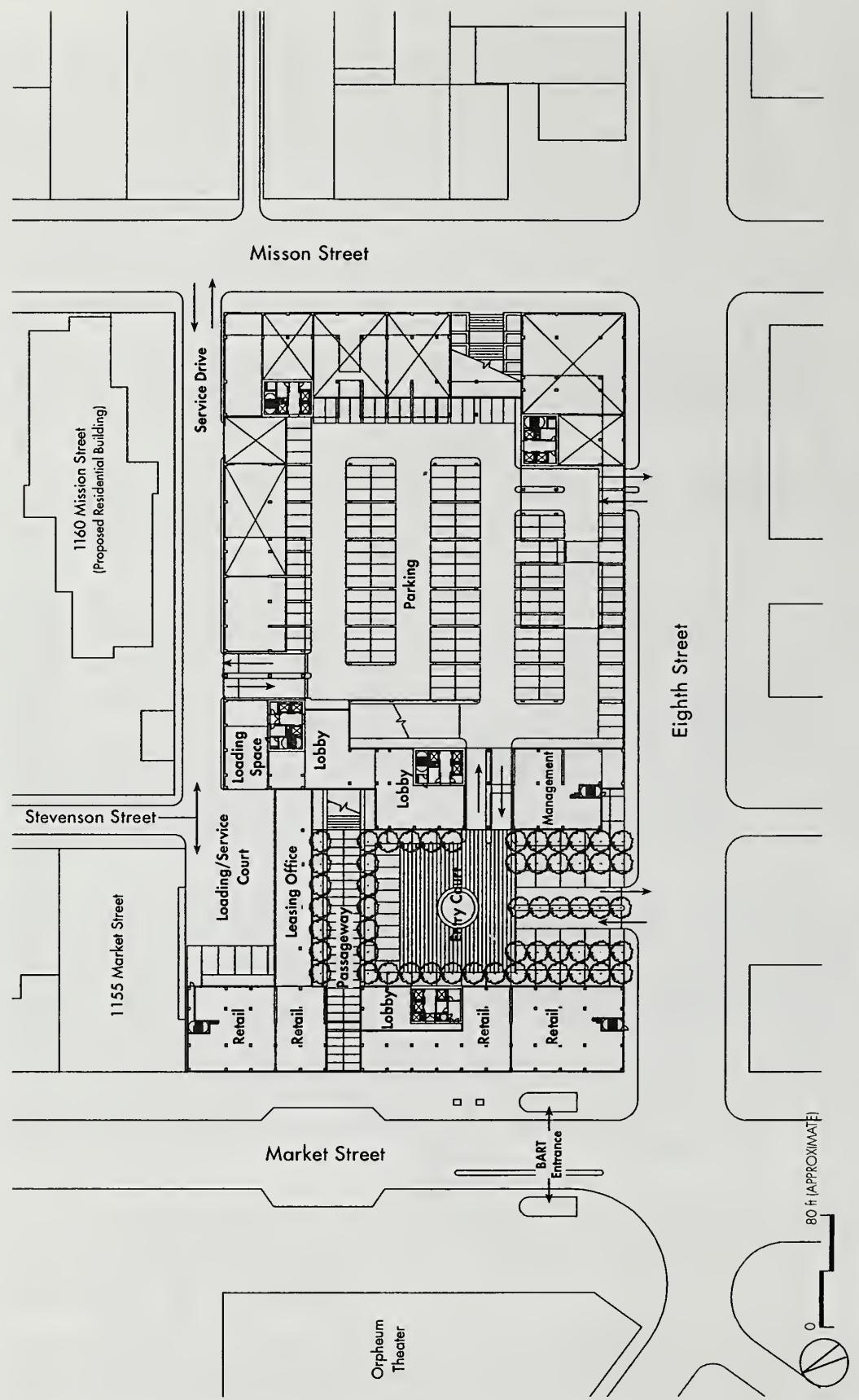


FIGURE 4: GROUND FLOOR PLAN (AT MARKET STREET GRADE)

Source: Arquitectonica

1177 Market Street Project

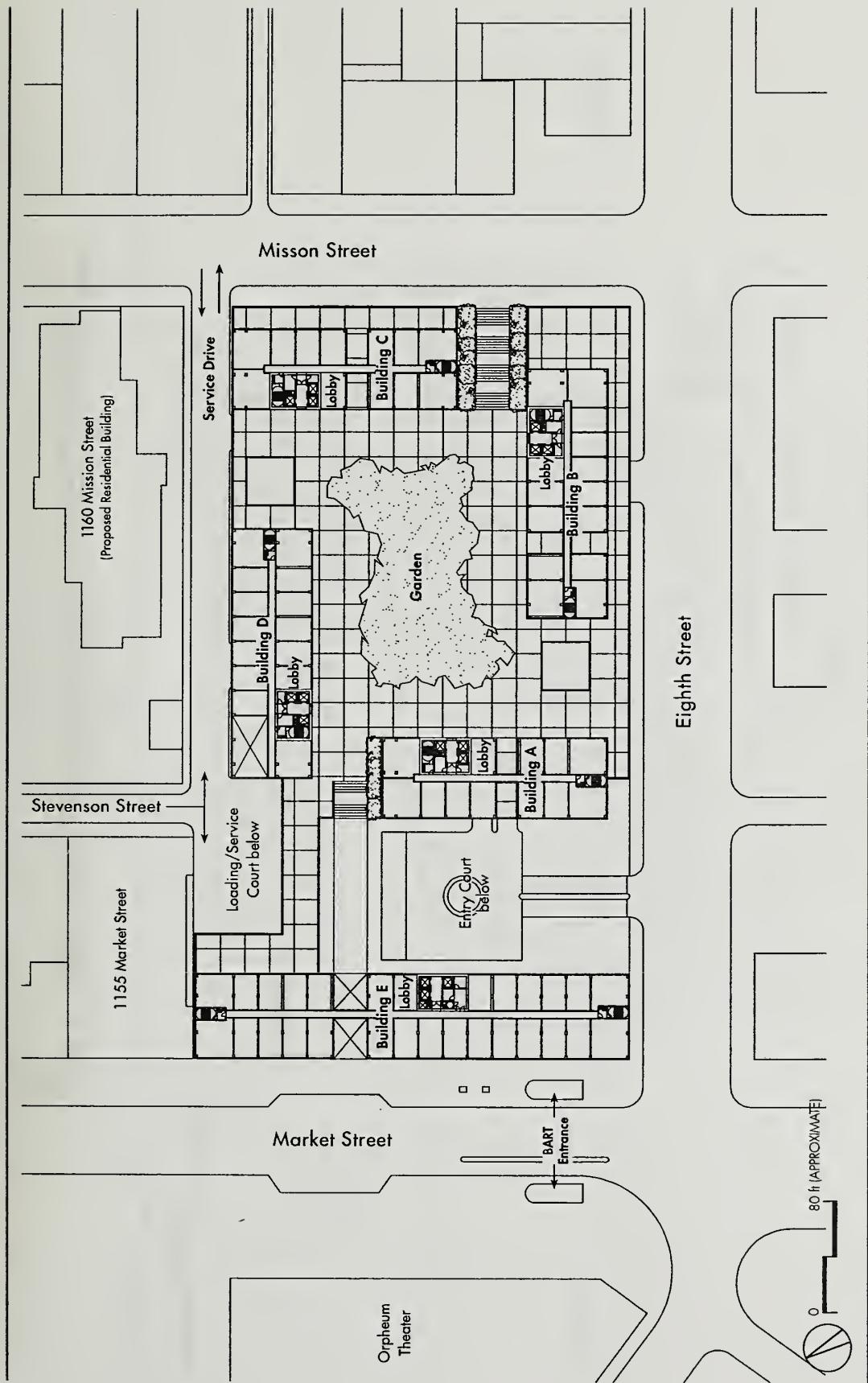


FIGURE 5: PLAZA LEVEL FLOOR PLAN

1177 Market Street Project

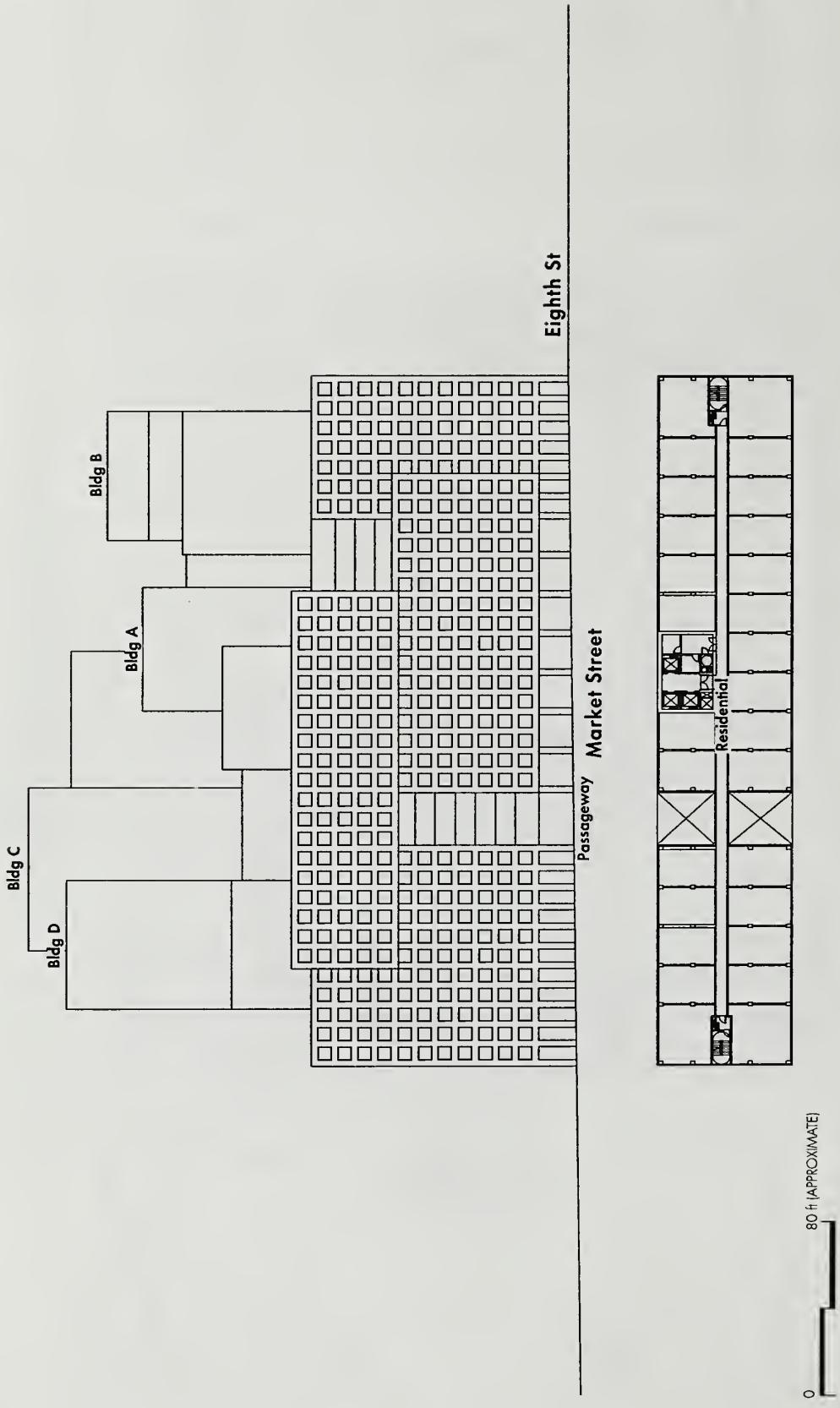


FIGURE 6: MARKET STREET ELEVATION AND TYPICAL FLOOR PLAN (BUILDING E)

Source: Arqitectureica

1177 Market Street Project

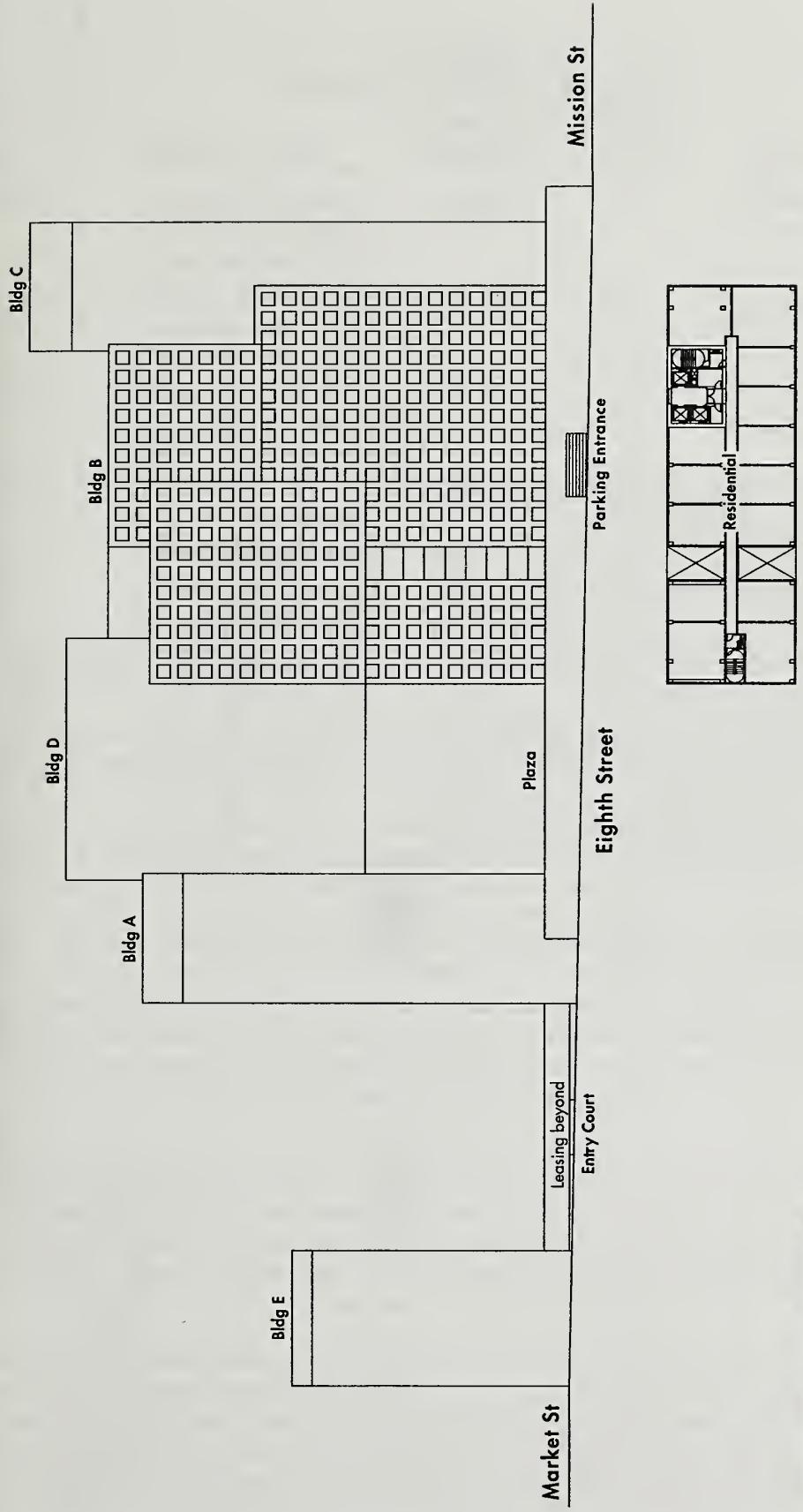
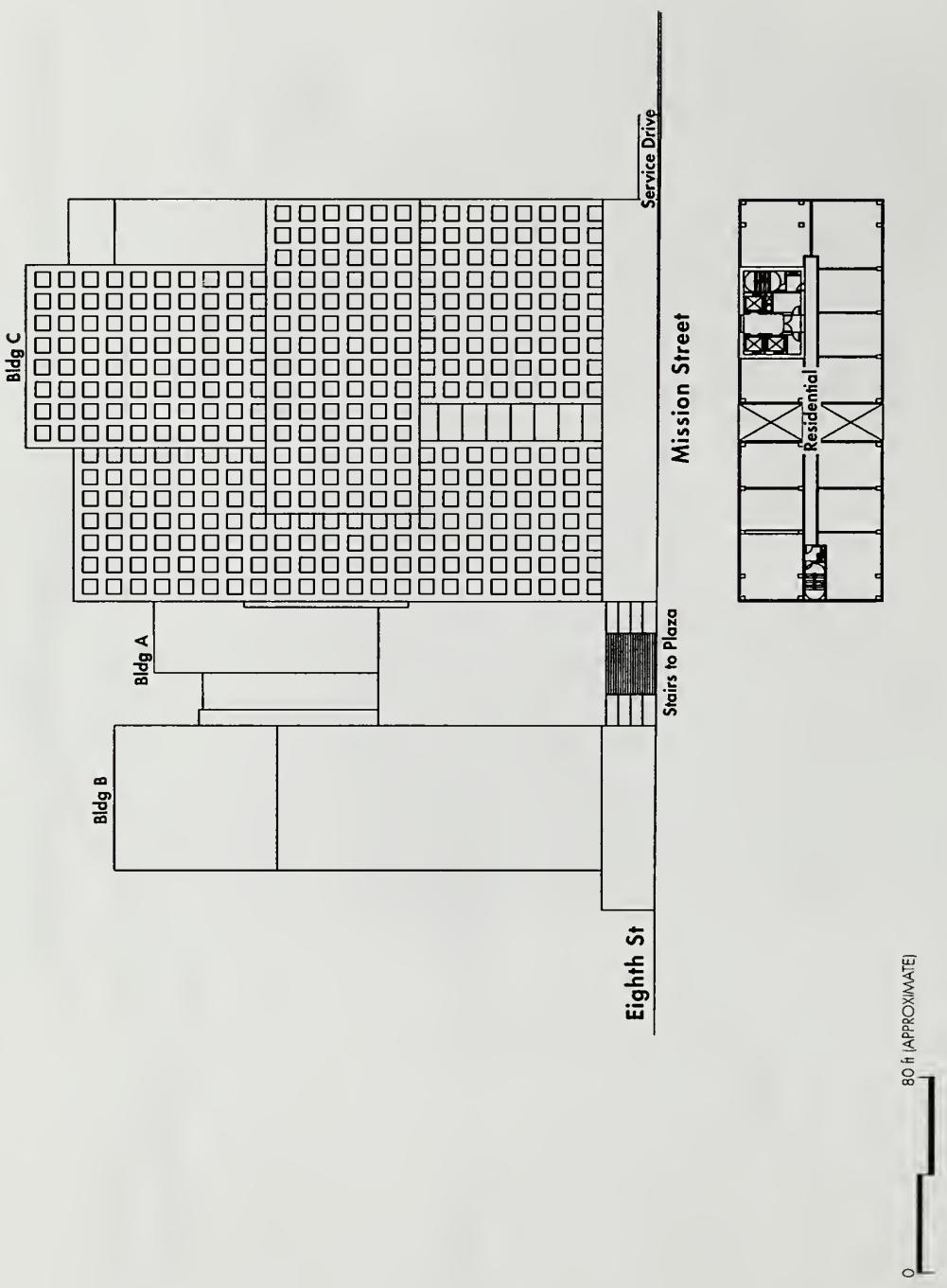


FIGURE 7: EIGHTH STREET ELEVATION AND TYPICAL FLOOR PLAN (BUILDING B)

1177 Market Street Project



Source: Arqitectonica

1177 Market Street Project

FIGURE 8: MISSION STREET ELEVATION AND TYPICAL FLOOR PLAN (BUILDING C)

TABLE 2
RESIDENTIAL USES BY BUILDING

Name	Residential Units	Approximate Size (sq.ft.)	Number of Stories	Approximate Height
Building A	260 units (224 studios, 18 one-bedroom units, 18 two-bedroom units)	166,800	19	177 feet to roof plus 20 feet architectural projection
Building B	268 units (202 studios, 19 one-bedroom units, 47 two-bedroom units)	191,400	21	197 feet to roof plus 21 feet architectural projection
Building C	268 units (196 studios, 22 one-bedroom units, 50 two-bedroom units)	196,400	24	238 feet to roof plus 21 feet architectural projection
Building D	312 units (245 studios, 20 one-bedroom units, 47 two-bedroom units)	218,200	23	219 feet to roof, plus 21 feet architectural projection
Building E	302 units (252 studios, 39 one-bedroom units, 11 two-bedroom units)	202,600	12	118 feet to roof, plus 11 feet architectural projection

Source: Arquitectonica, May 2003

All buildings except Building D would have vertical recessed slots of 8-9 stories in height to moderate the bulk and to provide visual interest and transparency into the project's open spaces from the street.

The proposed project would include four levels of parking in a garage providing a total of about 1,350 parking spaces. Two levels would be below grade and two levels would be partially at grade (because the site slopes down about 10 feet from Market Street to Mission Street). The parking garage would have ingress/egress on Eighth Street and from Mission Street via a two-way driveway along the eastern side of the site which would provide two entrances to the parking garage. A driveway on Eighth Street near Market Street would also provide a pedestrian pick-up and drop-off activity area in a circular entry court (see Figure 4, p. 6). This driveway would also provide secondary access to the parking garage. The service driveway along the east property line between Mission and Stevenson Streets would provide direct access to the two upper levels of the parking garage (see Figures 3 and 4, pp. 5 and 6). The two lower levels would be accessed via internal ramps.

The proposed parking would be used by the residents for long-term parking purposes and by the public for short-term parking purposes. About 1,100 spaces are proposed to be reserved for residents, with the balance available for short-term parking. Of the 1,350 parking spaces, 54 would be handicap spaces. The project would also provide approximately 20 motorcycle parking spaces and two bicycle storage rooms for a total of 50 bicycles on the first two parking levels, both accessible at street level. In addition, the project sponsor would provide four or more parking spaces for City CarShare's use.

Freight and service loading areas would be accessed via the service driveway from Stevenson Street or Mission Street. Stevenson Street is a mid-block service street accessible from Seventh Street that terminates at the project site. The two-way private driveway along the east side of the site would serve the loading/service court, as well as the parking garage. For security purposes, the service driveway would be controlled to be accessible only to those using the driveway for loading activities or for parking garage access. The project would provide seven off-street loading spaces—three standard

loading spaces with loading docks and four service vehicle spaces. Two of the loading spaces and all four service vehicle spaces would be accessed from the loading/service court near Stevenson Street (see Figure 4, p. 6); one loading space would be located in the parking garage at Parking Level P-1, accessed from the service drive (see Figure 3, p. 5). The loading spaces would be designed to meet Planning Code requirements.

The project would include street trees along all project frontages, with additional landscaping in the on-site open spaces.

Excavation is proposed to a maximum depth of about 35 feet. Approximately 165,000 cubic yards of soils would be removed from the site.

After demolition of existing improvements and excavation, the four-phased construction is anticipated to begin in late-2004. The construction period for phases one through four would take approximately 24 months each. Phase One would include the parking garage, Buildings A and E, the leasing offices and the entry and service/loading courts. Phase Two would include Building D and part of the central plaza. Phase Three would include Building B and the balance of the central plaza. Finally, Phase Four would include Building C. The overall project is expected to be completed by 2012.

As shown in Figure 1 on p. 2, the project site is located on Eighth Street, between Market and Mission Streets, one block southeast of the San Francisco Civic Center (while Market Street and Mission Street have a northeast-southeast alignment, by convention, locations are referred to as north or south of Market, or east and west of Eighth Street, or parallel streets). Zoning near the project site is primarily C-3-G (Downtown General Commercial), with P (Public) Use Districts to the north associated with the Civic Center area, and the SLR (Service/Light Industrial/Residential) Mixed Use District to the south associated with business services, light industry, residential uses, and wholesaling of the South-of-Market area. The C-3-G Use District serves as a city-wide and regional center for a variety of uses, including retail, offices, hotels, entertainment, institutions, and high-density residential. The majority of the project site along Mission and Eighth Streets is in the 240-S Height/Bulk District. Buildings A, B, C and D would be in this district and would range from 177 feet to 238 feet to the roof, with architectural projections rising an additional 20-21 feet above the roof.

The portion of the site facing Market Street is in a 120-X Height/Bulk District. The Market Street Building (Building E) would be about 118 feet with architectural projections rising to 129 feet. The area between the Building E and Buildings A-D is in the 150-X Height/Bulk District. The entry court, loading area, and leasing office would be in this area. The leasing office would be about one story in height or about 15 feet tall with landscaped open area above connected to the main courtyard at the plaza level.

Land uses in the immediate vicinity of the proposed project are a mix of retail, office, residential, hotel, institutional, and parking. Hotel, office, parking and residential uses are generally located to the west, office and entertainment uses to the north, and mixed-use office and retail to the east and south.

Office and mixed-use buildings in the surrounding vicinity generally range from two to 14 stories. Buildings in the area generally cover the majority of their site and are built out to the sidewalk. Office buildings at 1145 and 1155 Market Street, directly east from the project site, are 14 and 12 stories in height, respectively. Directly east of the project site at 1160 Mission Street between Stevenson and Mission Streets is a surface parking lot containing approximately 168 parking spaces, proposed for development as a 23-story residential building with parking. Further to the east at Seventh and Mission Streets is the future Federal Building, now under construction, 18 stories in height and expected to be

completed in 2004. To the west of the project site, across Eighth Street, is the two-story Washington Mutual Bank at 1201 Market Street, the 12-story Holiday Inn at 50 Eighth Street, and the five-story PG&E Substation at the northwest corner of Mission and Eighth Streets. Smaller-scale two- and three-story commercial and light industrial buildings are along Mission Street to the southeast of the project site. Buildings on or near Market Street near the project site to the west include the six-story Main Library at the corner of Grove and Hyde Streets, the Orpheum Theater at about four stories in height at the corner of Market and Hyde Streets and an office building east of the Orpheum Theater, about six stories in height. The Civic Center BART/MUNI station is near the intersection of Market and Eighth Street, with one entrance immediately adjacent to the project site on Market Street. Fox Plaza, about two blocks west of the project site at Market and Larkin Streets, is a 20-story mixed-use office, retail and residential building. Smaller-scale two- and three-story commercial and light industrial buildings are located along Mission Street south of the project site. The project site is within the proposed Mid-Market Redevelopment Project area. This area is proposed for designation as a redevelopment area by the San Francisco Redevelopment Agency. A Draft Mid-Market Redevelopment Plan and Draft EIR were completed in September 2002.² The Plan and EIR are currently undergoing public review and have not yet been adopted or certified. The land uses proposed for the project site are contained within, and are generally consistent with, the development scenarios of the Draft Plan and the Draft EIR for the proposed Mid-Market Redevelopment Plan.

II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

This Initial Study examines the project to identify potential effects on the environment. On the basis of this study, project-specific effects that have been determined to be potentially significant relate to visual quality, transportation and parking, air quality and climate. These issues will be analyzed in an Environmental Impact Report (EIR). Land use and planning will be discussed in the EIR for informational purposes. Topics noted "TO BE DETERMINED" mean that discussion in the EIR will enable a determination whether or not there would be a significant impact.

B. EFFECTS FOUND NOT TO BE SIGNIFICANT

The following effects of the project have been determined to be either insignificant or to be mitigated through measures included in the project: population; utilities and public services; biology; geology and topography; water; energy and natural resources; noise; hazards; and cultural resources (historic and archaeological resources). Those issues are discussed below and require no further environmental analysis in the EIR. All mitigation measures and improvement measures listed on pp. 35–40 have been agreed to by the project sponsor and will be incorporated into the project.

III. ENVIRONMENTAL EVALUATION CHECKLIST AND DISCUSSION

A. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<u>Not Applicable</u>	<u>Discussed</u>
1. Discuss any variances, special authorizations, or changes proposed to the City <i>Planning Code</i> or Zoning Map, if applicable.	—	X
2. Discuss any conflicts with any adopted environmental plans and goals of the City or Region, if applicable.	—	X

The *San Francisco Planning Code (Planning Code)*, which incorporates by reference the City's Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless either the proposed project conforms to the *Planning Code*, or an exception is granted pursuant to provisions of the *Planning Code*.

The Project would require conditional use authorization to demolish the existing building pursuant to Section 212(e) of the *Planning Code* which requires authorization for the demolition of residential units in the C-3 districts. Specific criteria are set forth in this section for approval or disapproval of demolition in lieu of those criteria normally applicable for conditional use authorization. Such criteria do not generally involve the physical environmental effects of the project or of the demolition, but rather the social and economic effects. The project would also require approval under Section 309 of the *Planning Code*, which sets forth a design review process for all projects within the C-3 districts. Pursuant to that section, the Planning Commission may approve or disapprove various aspects of the Project related to height, bulk, parking and loading, open space, landscaping and other aspects of the Project's design.

The *Planning Code* permits high-density residential uses and retail in the C-3-G Use District. Off-street parking accessory to such principal uses up to certain limits is also allowed and is determined by reference to Code requirements or, in the case of certain approvals, according to determinations by the Planning Commission regarding the amount of accessory parking adequate or required to serve such uses. As part of the Section 309 review, the Planning Commission may require or approve replacement of short-term parking and determine the amount of off-street parking necessary to serve proposed uses. Non-accessory off-street parking can be approved as a conditional use in the C-3-G Use District by the Planning Commission under Section 303 of the *Planning Code*. As a part of such review, the Commission may determine the amount that is necessary or desirable for, and compatible with, the neighborhood, and not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity and not adversely affect the Master Plan.

The 240-S Height/Bulk District permits construction to a height of 240 feet. The 150-X Height/ Bulk District permits construction to a height of 150 feet. The 120-X Height/Bulk District permits construction to a height of 120 feet. The majority of the project site along Mission and Eighth Streets is in the 240-S Height/Bulk District. The maximum building height would be about 238 feet to the roof within the portion of the site designated the 240-S Height/Bulk District. Architectural projections consisting of a vertical extension of the facades to enclose mechanical space would extend the building

height by an additional 21 feet, to a maximum of 259 feet (such features are not considered occupied space and would not count towards the building's height per *Planning Code*, Section 260(b)).

Building E along Market Street would be about 118 feet tall to the roof within the portion of the site that is in a 120-X Height/Bulk District; the architectural projections of the facades to enclose mechanical space would rise an additional 11 feet to 129 feet. The area between Building E and Buildings A-D is in a 150-X Height/Bulk District. The entry court, loading area, and leasing office would be located in this area. The leasing office would be about one story in height or about 15 feet tall within the portion of the site in a 150-X Height/Bulk District. Overall, the project would meet the requirements of the applicable *Planning Code* Height and Bulk Districts, although some bulk exceptions may be required pursuant to Section 309 of the Planning Code.

The total size of the proposed buildings would be about 1,579,400 gsf, of which the Project Sponsor expects about 1,050,000 gsf to be classified as gross floor area under the *Planning Code*. Gross floor area does not include accessory parking, short-term replacement parking, ground-level retail uses and certain components of gross space (such as certain types of basement storage). Any parking classified as non-accessory would be counted as gross floor area under the *Planning Code*. In the C-3-G District, a 6:1 Floor Area Ratio (FAR) is allowed by right, with a maximum allowable FAR of 9:1 through the use of transferable development rights (TDR) under Section 128 of the *Planning Code*. The actual FAR of the proposed project would be determined based on a review of the proposed floor plans and may be subject to future Planning Commission determinations. At the present time, the Project Sponsor does not intend to exceed the permitted base 6:1 FAR. To the extent that the FAR were to exceed 6:1, the Project Sponsor might obtain TDRs. TDRs are transferred from unused FAR from a site containing a Significant or Contributory building under Article 11 of the *Planning Code*.³ If the proposed project would require TDRs to exceed the base FAR of 6:1, the project would need written certification from the Zoning Administrator that the Project Sponsor owns the required number of TDRs prior to the issuance of a site or building permit.

As noted on pp. 14 – 16 of the Mid-Market Redevelopment Plan Draft EIR, development scenarios for implementation of the proposed Redevelopment Plan evaluated a range of uses in the proposed project area, including high-density residential uses and public parking.⁴ The Draft Redevelopment Plan proposes that its land use goals would be primarily implemented through existing *Planning Code* controls, and a proposed Mid-Market Special Use District (SUD). The proposed project would respond to the high-density residential land use goals anticipated as part of the Mid-Market Redevelopment Plan currently under public review.

Environmental plans and policies directly address environmental issues and/or contain targets or standards which must be met in order to preserve or improve characteristics of the City's physical environment. The proposed project would not obviously or substantially conflict with any such adopted environmental plans or policies.

The City's General Plan, which provides general policies and objectives to guide land use decisions, contains some policies which relate to physical environmental issues. The proposed project would not obviously or substantially conflict with any such policy. In general, potential conflicts with the General Plan are considered by decision makers independently of the environmental review process, as part of the decision whether to approve or disapprove a proposed project. Any potential conflict not identified here could be considered in that context, and would not alter the physical environmental effects of the proposed project.

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the *Planning Code* to establish eight Priority Policies. These policies are: preservation and enhancement of neighborhood-serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; maximization of earthquake preparedness; landmark and historic building preservation; and protection of open space. Prior to issuing a permit for any project which requires an Initial Study under CEQA, and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the General Plan, the City is required to find that the proposed project is consistent with the Priority Policies. The case report for the Conditional Use Authorization and Section 305 approval and/or subsequent motions for the Planning Commission will contain the analysis determining whether the proposed project is in compliance with the eight Priority Policies.

B. ENVIRONMENTAL EFFECTS

1. <u>Land Use - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Disrupt or divide the physical arrangement of an established community?	-	X	X
b. Have any substantial impact upon the existing character of the vicinity?	-	X	X

The proposed project would intensify the residential, retail, and parking uses at the project site from a 377-unit seven-story building about 263,600 gsf in size with approximately 450 parking spaces, to 1,410 units in five buildings, which would total to about 1,579,400 gsf with about 1,350 parking spaces. There would be 25,200 gsf of retail space.

The project site is in the C-3-G (Downtown General Commercial) zoning district, which permits high-density residential uses, retail uses and accessory parking, with non-accessory off-street parking uses with a conditional use authorization. Land uses in the vicinity include residential, retail, hotel, office, cultural, and institutional uses and parking. Most of the existing buildings have ground-floor retail space and are built out to the property lines. Existing office, hotel, and residential uses with ground-floor retail uses predominate on Mission, Market, and Eighth Streets in the project vicinity.

Office buildings at 1145 and 1155 Market Street, directly east of the project site, are 14 and 12 stories in height, respectively. Also directly east from the project site is a surface parking lot for 168 vehicles, proposed for redevelopment as a 23-story residential building with about 250 units and off-street parking for approximately 500 vehicles (1160 Mission Street Project, currently under review by the Planning Department). Further east from this parcel is the future Federal Building, now under construction. Expected to be completed in 2004, the Federal Building will be 18 stories in height with office uses and ground floor retail and no parking. A 230-room hotel with about 34 off-street parking spaces is proposed on a vacant lot east of the project site at 1125 Market Street.

Buildings to the north of the project site on Market Street include the six-story Main Library on the Larkin-Grove-Hyde-Fulton block near Market Street in the Civic Center area, and the Orpheum Theater on Market Street near Hyde Street, and an office building east of the theatre. The Civic Center BART/MUNI station is near the intersection of Market and Eighth Streets. To the west of the project site opposite Eighth Street is the two-story Washington Mutual Bank, the 12-story Holiday Inn

at 50 Eighth Street, and the five-story PG&E Substation at the northwest corner of Mission and Eighth Streets. Fox Plaza, about two blocks west of the project site at Market and Larkin Streets, is a 20-story mixed-use office, retail and residential building. Smaller-scale two- and three-story commercial and light industrial buildings are located along Mission Street south of the project site.

The project site is within the Mid-Market Area, proposed for designation as a redevelopment area by the San Francisco Redevelopment Agency. The Redevelopment Plan calls for increased housing, up to 3,330 new units, in the Mid-Market Area. A Draft Mid-Market Redevelopment Plan and Draft EIR were completed in September 2002. The Plan and EIR are currently undergoing public review and have not yet been adopted or certified. The land uses proposed for the project site are contained within, and are consistent with, the overall development scenarios in the Draft Plan and analyzed in the Draft EIR.

The proposed project would redevelop the site with a greater residential density than currently exists on the site, but would not disrupt or divide the physical arrangement of an established community. While densities would be greater than on the project site or than surrounding residential uses in the immediate vicinity, high-density residential use is permitted on this site. The project would intensity the current activities on the site and would be generally consistent with the planned uses and goals of the proposed Redevelopment Plan.

The Mid-Market Area is currently undergoing transition, and the proposed project and other major developments on the project block are part of a trend to increase the amount of high-density residential and commercial uses, as described above. While the project would increase densities on the project site and in the immediate vicinity compared to the existing condition, the project would be generally compatible with planned or under-construction uses on the project block. The project would not have a substantial adverse impact upon the existing character of the vicinity.

The project would not have a significant effect on land use. This topic will be discussed briefly in the EIR for informational purposes.

2. <u>Visual Quality - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Have a substantial, demonstrable negative aesthetic effect?			<u>TO BE DETERMINED</u>
b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?			<u>TO BE DETERMINED</u>
c. Generate obtrusive light or glare substantially impacting other properties?	-	X	X

The project would change views of the site from Market, Mission, and Eighth Streets or other nearby streets, and would replace views of the existing seven-story Trinity Plaza Apartments building with five buildings ranging from 12 to 24 stories in height. The new buildings would be visible from certain locations in the Civic Center. The EIR will identify key view points, including views of the project from the Civic Center Plaza, United Nations Plaza and other areas in the immediate project vicinity.

The EIR will discuss the visual aspects of the proposed project in relationship to the surrounding urban context and changes in views from street-level locations and from public open space.

The project would comply with City Planning Commission Resolution 9212, which prohibits the use of mirrored or reflective glass. Therefore, mirrored glass would not be used, and the building would not result in glare affecting other properties. The EIR will, therefore, not discuss glare.

The EIR will discuss the project's design, appearance, possible effects on views and its relation to the scale of surrounding development.

3. <u>Population - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Induce substantial growth or concentration of population?	—	X	X
b. Displace a large number of people (involving either housing or employment)?	—	X	X
c. Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	—	X	X

The development of 1,410 apartment units with residential amenities and retail uses would result in an on-site population of about 2,820 people.⁵ The project site currently contains a seven-story residential apartment buildings containing 377 units, ground-floor restaurant and office uses, and surface parking with a current resident population of about 470 persons.⁶ The 377 units would be replaced with 1,410 units, for a net gain of 1,033 units, and about 2,350 more residents at full occupancy. This increase in housing units and resident population represents large growth at the project site but the four-acre site is relatively large and, therefore, in terms of the density of development, the increase is not significant. In addition, in the context of the overall City, it would not be a substantial increase. The increase in housing units and resident population would represent less than five percent in housing and population growth in San Francisco by 2020.⁷ During the period of 1990-2000, the number of new housing units completed citywide ranged from a low of about 380 units (1993) to a high amount of about 2,065 units (1990) per year. The citywide annual average over that 11-year period was about 1,130 units.⁸

In March 2001, the Association of Bay Area Governments (ABAG) projected regional needs in the Regional Housing Needs Determination (RHND) 1999-2006 allocation. The projected need of the City for 2006 is 20,372 dwelling units or an average yearly need of 2,716 net new dwelling units. The proposed project, over the expected multiyear development schedule would add about net 1,033 residential units to the City's housing stock, towards meeting this need. The proposed housing would help to address the City's broader needs for additional housing in a citywide context in which job growth and in-migration outpace the provision of new housing. The project would also respond to the housing demand generated by the additional retail uses and residential service employment on-site. As noted in the Mid-Market Redevelopment Plan EIR, a large portion of housing growth is projected in the Mid-Market Area. The Mid-Market Redevelopment Plan projects that about 3,330 new residential units would be constructed in the Mid-Market area, which includes the project site.⁹ The proposed project, at 1,410 units, involving a net increase of 1,033 units on the site, would represent about one-third of the planned residential growth in the area.

The proposed project would displace approximately 470 residents, depending on the occupancy level at the time of project approval and demolition of the existing building. According to the Project Sponsor, the existing building has a current vacancy rate of about 12 percent (with a typical range from 2 to 7

percent through most of the year) and a relatively high turnover rate (due to relatively short tenures in most of the units). Approximately 340 of the residents to be displaced have been occupants for a year or less. According to the Project Sponsor, 240 units turned over in 2002, a rate in excess of 60 percent; in 2001 the turnover rate was almost 40 percent. Thus, apart from normal turnover, it is anticipated that the proposed project would displace approximately 130-140 residents who might otherwise continue in occupancy for several years, of which about 100 have been residents for more than five years. This number of displaced residents is expected to be accommodated in units available in the existing housing supply. However, there may not be a match between the ability to pay of the residents to be displaced and rent/price levels for available units prevailing at the time of potential displacement. The Project Sponsor intends to provide a program of relocation assistance which would include both an extended time period (at least 120 days) for relocation of existing residents once project approvals were obtained and payment of moving expenses, as well as technical assistance from non-profit organizations in assisting tenants in finding suitable relocation resources and additional monetary assistance to long-term residents according to need. The proposed project would also include 169 affordable housing units. Although there may be social and economic effects with respect to the relocation of residents who are elderly or may have difficulty finding replacement housing at comparable rents, no significant physical environmental effects, such as overcrowding and resulting housing deterioration, would be expected to occur due to displacement of existing residents.

The project would displace 50 jobs associated with the restaurant, building maintenance, the leasing office, and parking uses. Approximately 100 people would be employed at the proposed project site. As a result, there would be an increase in employment associated with the project. The increase in population and employment at the site, a total of about 2,350 net new residents and about 50 net new employees, for a total increase of about 2,400 persons on the four-acre site, would not be significant relative to the amount of residents and employees within the project vicinity; nor would it be significant with regard to expected increases in the population and employment of San Francisco.

No significant physical environmental effects on housing demand or population would occur.

4.	<u>Transportation/Circulation - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?			<u>TO BE DETERMINED</u>
b.	Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?			<u>TO BE DETERMINED</u>
c.	Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?			<u>TO BE DETERMINED</u>
d.	Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?			<u>TO BE DETERMINED</u>

The proposed project uses could place increased demands on the local transportation system, including increased traffic, transit and parking. The EIR will discuss project impacts related to transportation and circulation, including intersection operations, transit, on pedestrian circulation, parking and freight loading, and construction impacts. -

<u>5.</u>	<u>Noise - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Increase substantially the ambient noise levels for adjoining areas?	-	X	X
b.	Violate Title 24 Noise Insulation Standards, if applicable?	-	X	X
c.	Be substantially impacted by existing noise levels?	-	X	X

The existing background noise levels in the project area are typical of noise levels in urban San Francisco. The primary source of noise in the vicinity of the project is traffic. Other sources of noise include construction of other projects within the vicinity of the project and other common urban noises such as idling engines and back-up alarms on delivery trucks, and exiting car alarms for pedestrians near exits to parking structures. The nearest sensitive receptors to the proposed project area are the residential uses and employees on the project block and the residents, hotel guests, and employees of the blocks surrounding the project site.

Construction Noise and Vibration

The project would be constructed in four phases over about eight years. All demolition and about half of the required excavation are planned for the first phase and are expected to last about eight months. The balance of the excavation would require approximately four months and would occur during the second phase. Construction of buildings would take about 24 months for each of the four phases. The first two phases would include Buildings A, D and E. The third phase would include Building B, and the fourth phase would include Building C. During the majority of construction activity, noise levels would be above existing levels in the project area. Construction noise would fluctuate depending on the construction phase, equipment type and duration of use, distance between noise source and listener, and presence or absence of barriers. There would be times when noise could interfere with indoor activities in nearby offices, hotels, and other businesses adjacent to the project site.

Noise impacts from specific activities would be limited to the period of that activity. Overall construction activities would last approximately eight years due to project phasing. As a consequence, there would be prolonged, although variable and intermittent, construction noise at the project site.

While foundation plans are preliminary, pile driving is not anticipated except for the excavation and shoring phase. In the event that pile driving was necessary, the project would include Mitigation Measure 1a. on p. 35 to reduce pile driving noise and vibration effects on structures.

All demolition and construction activities would be conducted in compliance with the San Francisco Noise Ordinance (Article 29 of the Police Code). The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dBA at a distance of 100 feet from the source. Impact tools, such as jackhammers and impact wrenches, must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. The project would include Mitigation Measure 1b on p. 35 to further reduce construction noise. Section 2908 of the Ordinance prohibits construction work between 8:00 PM and 7:00 AM, if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Director of Public Works. The project demolition and construction operations would not occur within

these hours and would comply with the Noise Ordinance requirements. Compliance with the Noise Ordinance is required by law and would reduce any impact on the environment to a less-than-significant level. Therefore, construction noise from the project would not have a significant impact on the environment.

Based on the above analysis, no further analysis of construction noise or vibration will be presented in the EIR.

Traffic Noise

Outdoor noise in the vicinity of the proposed project area includes numerous potential sources of noise. The most significant existing source of noise throughout most of San Francisco is traffic. This would be true for the proposed project area because of its proximity to Market, Mission, and Eighth Streets traffic, and MUNI bus lines along Market, Mission, and Eighth Streets. The nearest sensitive receptors in the project vicinity would be the residential uses on and near the project site. An approximate doubling of traffic volumes in the area would be necessary to produce an increase in ambient noise levels noticeable to most people. Traffic volumes in the project area would increase but would not be expected to double as a result of the proposed project; therefore, substantial increases in traffic noise levels would not be anticipated in the project area. Project operation would not result in noise levels perceptibly greater than those that presently exist in the vicinity of the site. Noise created by the project operation would be due to additional automobile traffic, truck deliveries, ventilators and other mechanical equipment, and the general coming and going of residents, employees, and other visitors. Traffic noise impacts would not have a significant impact on the environment and will not be analyzed further in the EIR.

Building Equipment Noise

The proposed project could include mechanical equipment, such as fan units, which could produce operational noise. The project would be required to comply with the San Francisco Noise Ordinance, San Francisco Police Code Section 2909, Fixed Source Levels, which regulates mechanical equipment noise. Because substantial increases in the ambient noise level due to building equipment noise would not be anticipated, no significant impact on the environment would occur, thus the EIR will not discuss equipment noise further.

Interior Noise and Existing Noise Levels

The residential component of the project would be subject to the noise standards of Title 24 of the California Code of Regulations, which would provide interior noise levels of 45 dBA or lower. The existing background noise levels on the project site are typical of noise levels in urban San Francisco. This existing noise would occasionally be noticeable within the proposed buildings. However, with standard construction systems, the proposed residential uses would experience noise reduction greater than with the older existing buildings. As such, interior noise and the effect of existing noise levels on the proposed development would not have a significant impact on the environment and will not be analyzed further in the EIR. The standards of Title 24 would insulate the interior uses from excessive exterior noise levels. The residential uses would be insulated from exterior noise with normal interior design. The proposed development's interior residential courtyard would be partially enclosed by the project buildings on four sides and would be predominantly shielded from the exterior noise environment. The effect of existing noise levels on the proposed development would not have a significant impact on the environment and will not be analyzed further in the EIR.

6. <u>Air Quality/Climate - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?			<u>TO BE DETERMINED</u>
b. Expose sensitive receptors to substantial pollutant concentrations?			<u>TO BE DETERMINED</u>
c. Permeate its vicinity with objectionable odors?	—	<u>X</u>	—
d. Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?			<u>TO BE DETERMINED</u>

Air Quality

Emissions from Traffic. The proposed project could potentially result in air quality impacts if traffic volumes would increase substantially. Automobile and truck emissions are the primary source of two pollutants that are ozone precursors: reactive organic gases (ROG) and nitrogen oxide (NO_x). The emissions of the two air pollutants are regulated by the Bay Area Air Quality Management District (BAAQMD). The BAAQMD has established thresholds for projects requiring its review for potential air quality impacts. These thresholds are based on the minimum size projects which the District considers capable of producing air quality problems due to vehicular emissions. The minimum size project considered significant by the BAAQMD is 510 apartment units. Since the project would contain 1,410 apartment units, the project would exceed this minimum standard. Carbon monoxide (CO) emissions and the possibility of exceeding carbon monoxide standards at congested intersections and nearby sensitive receptors could be of particular concern. The EIR will analyze the operational effects of the project related to area-wide patterns. These issues will be discussed in the EIR.

Construction Emissions. During construction, air quality could potentially be affected. Heavy equipment could create fugitive dust and emit nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), hydrocarbons (HC), and particulate matter with a diameter of less than 10 microns (PM₁₀) as a result of diesel fuel combustion. The primary pollutant of concern in fugitive dust would be PM₁₀. PM₁₀ is also released as a result of construction activities such as excavation or soil movement.

Construction emissions could cause adverse effects on local air quality by adding wind-blown dust to the particulate matter in the atmosphere while soil is exposed. The BAAQMD, in its CEQA Guidelines, has developed an analytical approach that obviates the need to quantify these emissions. Instead, BAAQMD has identified a set of feasible PM₁₀ control measures for construction activities. The Project Sponsor has agreed to implement Mitigation Measures No. 2 to reduce the effects of construction activities to an insignificant level (see p. 35-36). Because the project would include these mitigation measures, it would not cause significant construction-related air quality effects. Overlapping construction schedules with other projects in the vicinity, such as the adjacent 1160 Mission Street project, however, may create construction emissions that could be cumulatively significant. The EIR will identify the construction periods for all projects occurring simultaneously on the project block. These issues will be discussed in a brief air quality section of the EIR.

The foundation excavation and site grading would create the potential for wind-blown dust to add to the particulate matter in the local atmosphere while open soil is exposed. In order to reduce the quantity of dust generated during site preparation and construction, the Project Sponsor has agreed to implement dust control measures, as described in Mitigation Measure No. 2, on pp. 35-36.

Shadow Effects

Section 295 of the City Planning Code was adopted in response to Proposition K (passed in November 1984) in order to protect certain public open spaces from shadowing by new structures during the period between one hour after sunrise and one hour before sunset, year round. Section 295 restricts new shadow upon public spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet unless the City Planning Commission finds the impact to be insignificant. Planning Code Section 295(a)(3) states that buildings permits for structures that will cast shade or shadow upon properties under the jurisdiction of the Recreation and Park Commission may not be issued with the exception of “[s]tructures to be constructed on property under the jurisdiction of the Recreation and Park Commission for recreational and park-related purposes.” Open spaces near the project site include United Nations Plaza, Civic Center Plaza, and the Fulton Street Mall. Of the public open spaces, only the Civic Center Plaza is under the jurisdiction of the Recreation and Park Commission, and would be subject to Section 295 of the *Planning Code*. The proposed project buildings would be more than 40 feet in height, would be subject to Section 295, and would potentially cause shading on open space. In addition, Sections 146 and 147 of the *Planning Code* protect open spaces and Market Street sidewalks from excessive shadows where possible. Based on the above, the EIR will discuss shadow effects of the proposed project on nearby open spaces and sidewalks.

Wind Effects

Section 148 of the City Planning Code established specific comfort and pedestrian hazard criteria to be used in the evaluation of wind effects from proposed buildings in certain areas of the City. Tall buildings in downtown areas can redirect wind flows around and down to street level and result in increased wind speed and turbulence at street level. Typically, buildings of 100 feet in height or less would not create adverse pedestrian wind conditions. The proposed project would range in height from 129 feet along Market Street (Building E) to approximately 259 feet at the eastern building (Building C) near Mission Street, including parapets and architectural projections to enclose mechanical equipment. Because portions of the proposed project would be taller than 100 feet in height in an area that is known to be windy, a wind tunnel study will be prepared to document existing wind conditions in the project vicinity and will analyze future conditions with the project, and with cumulative development constructions. Based on analysis in the wind study, the EIR will discuss project wind effects.

7. <u>Utilities/Public Services - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Breach published national, state or local standards relating to solid waste or litter control?	—	X	X
b. Extend a sewer trunk line with capacity to serve new development?	—	X	X
c. Substantially increase demand for recreation or other public facilities?	—	X	X

- d. Require major expansion of power, water, or communications facilities?

— X X

The project would replace existing residential and commercial uses with similar uses, although at a greater intensity. The project would increase the number of residents and employees on the site by approximately 2,400 people.

Solid Waste

The project site presently receives solid waste, water, and wastewater services. The Golden Gate Disposal and Recycling Company provides residential and commercial garbage and recycling services to the downtown area, as well as seven other sections of San Francisco.¹⁰ Residents and employees at the proposed project site would be expected to generate an additional 6,000 pounds of solid waste per day, and approximately 2,160,000 pounds per year.¹¹ The proposed project is expected to have 25,200 square feet of retail uses, which would be expected to generate about 500 pounds per day and about 182,000 pounds per year of solid waste.¹² The proposed project is within a developed urban area of San Francisco and would not generate solid waste amounts that the Golden Gate Disposal and Recycling Company would be unable to accept. The EIR will not discuss this issue further.

Wastewater

The project site is served by San Francisco's combined sewer system, which handles both sewage and storm water runoff. The project site is served by the Southeast Water Pollution Control Plan located near Third Street and Evans Avenue.¹³ The proposed project building would be connected to existing sewer lines. The proposed project is expected to substantially increase wastewater generation at the site due to the additional 1,033 residential units and about 2,400 more residents and employees on-site. However, the City's combined wastewater and storm system has capacity to service the proposed project. Construction of new sewer trunk lines would not be necessary because the project area is already adequately served by existing sewer infrastructure. The proposed project would be within expected growth projections for the City, no significant impact on wastewater treatment capacity are expected.¹⁴

Because the proposed project would not substantially increase wastewater at the project site, the EIR will not discuss this issue further.

Public Schools

The San Francisco Unified School District (SFUSD) provides public primary and secondary education in the City and County of San Francisco. The district is comprised of 78 elementary schools, 17 middle schools, and 21 high schools, and the total student enrollment is approximately 60,000 students.¹⁵ The nearest elementary school would be the Bessie Carmichael Elementary School located at 55 Sherman Street, about half a mile southeast of the project site. The nearest middle school is Enola D. Maxwell Middle School at 655 De Haro Street, about 1.5 miles southeast of the project site. The nearest high school is Mission High School located at 3750 18th Street, about 1.5 miles southwest of the project site.¹⁶ The SFUSD is currently not a growth district and facilities throughout the City and County are underused. No construction of schools is planned near the project site.¹⁷ An increase in students associated with the proposed project would not substantially change the demand for schools. Underused schools may require rehabilitation to accommodate these additional students. No new facilities are expected to accommodate the students. School facilities will not be discussed further in the EIR.

Recreation

There are no public recreation facilities on the project site. The nearest parks to the project site are Civic Center Plaza, about one block west, which includes children's playgrounds, and United Nations Plaza, directly north access Market Street. The South of Market Park and Recreation Center, is about 2.5 acres and is located about three blocks to the east at Sixth and Howard Streets. The Howard and Langton Mini Park, which is less than half an acre, is two blocks southeast of the project site. An increase of about 2,350 residents over the existing current occupancy of about 470 residents would not be a significant increase in the overall population of San Francisco. In addition, the proposed project would provide open space according to Planning Code Section 135, which establishes a minimum amount of usable open space for dwelling units and group housing.

Therefore, impacts resulting from an increase the demand of recreation or other public facilities would be less than significant and will not be discussed further in the EIR.

Police and Fire Protection Services

The project site presently receives police and fire protection services. The project would create additional residents, employees and visitors and would create an increase demand for fire and police services in the area. Although the project could increase the number of calls received from the area or the level of regulatory oversight that must be provided as a result of the increase in population on-site, the increase in responsibilities would not likely be substantial in light of the existing demand for police and fire protection services. As noted in the *Mid-Market Redevelopment Plan Draft EIR*, development in the Mid-Market Area, which includes the proposed project site, would help rehabilitate the project area and reduce blight that is prevalent in the area by providing housing and economic development. These physical improvements could help to lessen illegal activities in the project area through the introduction of new residents, revitalized commercial uses, and an improved pedestrian environment. Furthermore, the increase in demand would not require the construction of any new police or fire prevention facilities. For these reasons, the EIR will not discuss further police or fire protection services.

Electricity

The project site is already served by power utilities and communication facilities. Although utilities would be replaced throughout the site, the new buildings would tap into the existing power and communications grids. Therefore, no new power or communications facilities would be necessary as a result of project implementation, and the EIR will not discuss this issue further.

Other Public Utilities

The proposed project would result in an increase of 2,400 residents and employees. As a result, there would be an incremental increase in the demand for and use of water, communication, and other public utilities, but not in excess of amounts expected and provided for by the existing utility infrastructure. Significant effects on these public utilities are, therefore, not expected, and this topic will not be analyzed in the EIR.

8. <u>Biology</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Substantially affect a rare or endangered species of animal or plant, or the habitat of the species?	—	X	X
b. Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	—	X	—
c. Require removal of substantial numbers of mature, scenic trees?	—	X	X

The project site is completely covered by an existing seven-story apartment building and surface parking and does not support or provide habitat for any known rare, threatened or endangered wildlife or plant species. No other important biological resources exist on the project site. Any street trees removed as part of the project would be replaced with new trees that would mature over time. Therefore, the project would not have significant vegetation and wildlife impacts and the EIR will not discuss these issues further.

9. <u>Geology/Topography</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	—	X	X
b. Change substantially the topography or any unique geologic or physical features of the site?	—	X	—

The Community Safety Element of the *San Francisco General Plan* contains maps that show areas subject to geologic hazards. The project site is located in an area subject to ground shaking from earthquakes along the San Andreas and Northern Hayward Faults and other faults in the San Francisco Bay Area (Maps 2 and 3 in the Community Safety Element). The project site is in an area of liquefaction potential (Map 4 in the Community Safety Element), a Seismic Hazards Study Zone designated by the California Division of Mines and Geology.

A geotechnical report for the site was prepared by Treadwell & Rollo in January 2003.¹⁸ According to the report, the project site slopes downward approximately ten feet from Market Street to Mission Street. Groundwater is present between 12.5 to 24.3 feet below existing grade. The potential for liquefaction and lateral spreading at the site is very low. The site is relatively flat and covered by existing structures indicating that the potential for large-scale landsliding and erosion is very low. Based on the geotechnical report, there are no major issues that would preclude development of the site as planned.

The primary geotechnical issues that would be addressed in the design and planning are the presence of groundwater; the foundation type and support of adjacent buildings, Civic Center BART and MUNI facilities, streets, and utilities; temporary shoring; and dewatering during excavation and construction. Major recommendations in the geotechnical report for these topics include:

Foundation: The report recommends a mat foundation supported on the dense sandy soil.

Shoring: The report recommends deep soil-cement walls and a soldier-pile-and lagging system to retain the excavation. Where space permits, the sides of the excavation could be sloped.

Dewatering: The report recommends dewatering during excavation and construction. Dewatering is discussed further under 10. Water, below:

Construction Monitoring: The report recommends monitoring of ground movements, groundwater levels and shoring movements during construction, with appropriate instrumentation and survey points on buildings and streets within 75 feet of the project site.

Construction of the project would require excavation to depths of 20 to 35 feet throughout the site to accommodate the subsurface garage. Stability and site safety during excavation would be achieved through standard, accepted shoring and dewatering techniques. Because the building permit process provides for review of the site conditions and final building design, no people or structures would be exposed to potential geologic hazards, and the impact of the proposed project would be less than significant.

The Department of Building Inspection (DBI), in its review of the building permit application would review the final geotechnical report with its assessment of the nature and severity of the hazards at the site and would recommend project design and construction features to reduce the hazards. The Project Sponsor would follow the recommendations of the final geotechnical report regarding any excavation and construction for the proposed project, including the types of foundations necessary to support various proposed project elements. To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when the Department of Building Inspection reviews the geotechnical report and building plans for a proposed project, it determines necessary engineering and design features for the project to reduce potential damage to structures from ground shaking. The Project Sponsor has agreed to implement Mitigation Measure 3 (see p. 36) to facilitate Building Code compliance and reduce potential geological hazards. In this way, potential damage to structures from geologic hazards at a project site would be ameliorated through the Department of Building Inspection requirement for a geotechnical report and review of the building permit application.

The project would not significantly alter the topography of the site, or otherwise affect any unique geologic or physical features of the site. Therefore, no further analysis of geology and seismicity is required, and the EIR will not discuss these issues further.

10. <u>Water - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Substantially degrade water quality, or contaminate a public water supply?	—	X	X
b. Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?	—	X	X
c. Cause substantial flooding, erosion or siltation?	—	X	X

Water Supply and Water Quality

All large-sized proposed projects in California subject to CEQA are required to obtain a water assessment. In May 2002, the San Francisco Public Utilities Commission (SFPUC), adopted a resolution finding that the SFPUC's Urban Water Management Plan (UWMP) adequately fulfills the requirements of the water assessment for water quality and wastewater treatment and capacity as long as the project is covered by the demand projections identified in the UWMP.¹⁹ The SFPUC's UWMP 2000 update is based upon the Association of Bay Area Government's (ABAG) Year 2000 Projections, which includes all known or expected development projects in San Francisco through 2020, including the Mid-Market Redevelopment Plan which anticipates high-density residential growth at this site. Therefore, the proposed project would be included in the UWMP and would not substantially increase the existing water demand beyond expected levels.

Project-related wastewater and storm water would flow to the City's combined sewer system and would be treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant prior to discharge. During operations, the project would comply with all local wastewater discharge requirements. Therefore, the project would not substantially degrade water quality.

The project site is made up of impervious surfaces including an apartment building and surface parking. The proposed project would cover the project site with residential buildings and underground parking, and would not substantially change the area of impervious surface at the site or alter site drainage. No use of groundwater currently exists on the site. Project-related wastewater and storm water would continue to flow to the combined sewer system. During construction, requirements to reduce erosion would be implemented pursuant to California Building Code Chapter 33, Excavation and Grading. During operations, the project would comply with all local wastewater discharge requirements. Therefore, ground water resources would not be substantially degraded or depleted, and the project would not interfere substantially with groundwater recharge.

Dewatering

The project would include excavation to accommodate the proposed parking below the existing grade. Based on the geotechnical report prepared for the project site, the water table appears to be at a depth of approximately 12.5 to 24.3 feet below ground surface.²⁰ Since the project would include up to three levels of subsurface parking with excavation to about 35 feet, it is likely that dewatering would be required. Thus, any groundwater encountered during construction would be subject to the requirements of the San Francisco Industrial Waste Ordinance (Ordinance No. 199-77), requiring that groundwater meet specified standards before being discharged into the sewer system. The Bureau of Environmental Regulation and Management of the Department of Public Works would be notified if the project were to require dewatering.

Construction of the project would require excavation to depths of 20 to 35 feet throughout the site to accommodate the subsurface parking. Stability and site safety during excavation would be achieved through standard, accepted shoring and dewatering techniques. Dewatering would be necessary and would be carried out in accordance with the recommendation of the final geotechnical report.²¹ The final geotechnical report recommends monitoring of movement and settlement of surrounding buildings and adjacent streets. The Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the Project Sponsor to perform this monitoring. Groundwater monitoring wells and/or instruments would be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were

to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor. The project would implement Mitigation Measure 4, to reduce the potential water quality effects of dewatering (pp. 34-35). No further analysis of water resources is required in the EIR.

Any exposure of soil during site preparation would occur below street grade and would have low potential for substantial erosion or siltation. In addition, the project site is relatively level and would have low potential for substantial flooding. No further analysis of flooding, erosion, or siltation is required in the EIR.

11. <u>Energy/Natural Resources</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<u> </u>	<u>X</u>	<u>X</u>
b. Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	<u> </u>	<u>X</u>	<u>X</u>

The proposed project would increase energy use at the project site due to the increased intensity of proposed uses. The project would meet current State and local codes concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection. For this reason, it would not cause a wasteful use of energy. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco and the State and would not in and of itself require a major expansion of power facilities. Therefore, the energy demand associated with the proposed projects would not result in a significant physical environmental effect and will not be further discussed in the EIR.

12. <u>Hazards</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	<u> </u>	<u>X</u>	<u>X</u>
b. Interfere with emergency response plans or emergency evacuation plans?	<u> </u>	<u>X</u>	<u>X</u>
c. Create a potentially substantial fire hazard?	<u> </u>	<u>X</u>	<u>X</u>

A Phase I Environmental Site Assessment (ESA) and a Phase II ESA of hazardous materials at the project site were prepared in September 2002 and January 2003.^{22,23} Findings of the Phase I and Phase II ESAs are summarized in this section.

Hazardous Materials Use

The proposed project would involve the development of residential, retail, and parking uses, which would require relatively small quantities of hazardous materials for routine purposes. The development would likely handle common types of hazardous materials, such as cleaners and disinfectants. These

commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Most of these materials are consumed through use, resulting in relatively little waste. Back-up electrical generators, which would likely utilize diesel fuel, may additionally be located on the project site, but would not likely contain such fuel in sufficient quantities to pose a significant hazard. Businesses are required by law to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers. For these reasons, hazardous materials use in the proposed project would not pose any substantial public health or safety hazards related to hazardous materials.

Soil and Groundwater

The Phase I ESA undertaken for this project lists current and past operations, reviews environmental agency databases and records, identifies site reconnaissance observations, and summarizes potential contamination issues. Historically, the project site has been used for retail uses, a restaurant, a baseball field and park, a gasoline and oil service station, a hotel, and presently an apartment building, restaurant and parking. According to the Phase I ESA, prior activities at the site appear to have resulted in potential contamination into the underlying soil pertaining to a paint-spill area, and the possible presence of underground storage tanks associated with the former service stations.

The Phase I report reviewed records at the San Francisco Department of Public Health, which indicated that a series of soil samples had been collected at the site as part of the removal of a 4,000-gallon diesel tank in 1994. During the tank removal, petroleum hydrocarbons were detected, and 40 tons of soil were excavated from the site. Sampling after the removal of the underground storage tank and soil did not detect any benzene, toluene, ethylbenzene, and xylenes constituents and the case received closure in September 1995. The records search indicated that a site investigation in the former unpaved paint spill area was conducted in 1994 by Harding Lawson Associates (HLA), with 12 near-surface soils samples taken between six to 12 inches below grade. Analytical results indicated that titanium, soluble chromium, and soluble lead were present. No volatile organic compounds (VOCs) were detected in the samples detected for VOCs. HLA was unable to identify regulatory guidelines regarding concentrations of total titanium. The concentrations of soluble chromium detected were below the soluble threshold limit (STLC), and soluble lead was detected at levels exceeding the STLC both inside and outside of the paint spill area. HLA stated that, although distribution values indicated that the site soil contains a background concentration of soluble lead exceeding the STLC, the waste-paint spill area did not contribute to those background levels. The San Francisco Department of Public Health Department did not agree with the sample locations and stated that if the property owner chose to pave over the area without remediation, a deed restriction would be required for the entire property. According to a 1999 EPA site-screening checklist, contaminated soil was removed for grading and paving. Because there is a lack of information indicating if the paint-spill site was remediated, the Department of Toxic Substances Control (DTSC) considers this matter an open case. Additionally, due to the potential for elevated lead concentrations at the site, any soil excavated as part of construction activities may need to be handled as hazardous waste.

In order to resolve the open case with DTSC and in order to further characterize soil conditions as necessary, the Project Sponsor has signed a Voluntary Cleanup Agreement with DTSC in order to provide for further characterization and clean up of the site, as determined to be necessary by DTSC. Pursuant to the Voluntary Cleanup Agreement, DTSC will provide review and oversight of all activities intended to result in closure of the site with respect to the contaminated soil. Pursuant to the Voluntary Cleanup Agreement, the Project Sponsor has caused to be prepared a preliminary Sampling and Analysis Plan (SAP), dated March 13, 2003, which provides the basis for conducting further investigations, including soil borings, soil sampling, soil classification, laboratory analysis, and

determinations regarding needs for future disposal or other form of remediation, if determined by DTSC to be necessary.²⁴ The Project Sponsor has also caused to be prepared a Soil Excavation Plan (SEP) dated March 27, 2003.²⁵ The SEP provides the basis for excavation, storage, sampling and treatment and/or disposal of excavated soils. The SEP provides for the method for handling and stockpiling of surplus soils on the site prior to their characterization and removal from the site, including protection from precipitation and minimization of dust and fugitive emissions; soil sampling and analysis, including lead characterization; characterization of stockpiles and protection of each from mixing with other soils prior to disposal; and transportation to appropriate landfills in accordance with soil characterization. All transportation of soils characterized as State of California hazardous waste shall be in accordance with those procedures required by California and Environmental Protection Agency regulations.

Any remediation activity required pursuant to the Voluntary Cleanup Agreement would, to the extent possible, be carried out prior to any demolition or new construction associated with the proposed project. However, to the extent that the Project Sponsor is unable to satisfy DTSC regarding site remediation prior to project approval, the Project Sponsor would complete the implementation of Mitigation Measure 5a, p. 37, (subsequent to project approval), during excavation, and would implement Mitigation Measure 5b, p. 37, with respect to soils to be excavated from the site, to the extent necessary to characterize and dispose of excavated soils having high background lead levels and other potential contaminants.

The Phase II ESA includes laboratory test results for a limited number of groundwater samples from locations of a service station known to have been present at the site. Results from the three groundwater samples and a sample from a monitoring well indicated the presence of chloroform, cis-1,2 dichloroethene, and trans 1,2 dichloroethene. The detected concentrations were compared to the State of California Primary Maximum Contaminant Levels (MCL) for Drinking Water, and each detected concentration is below their respective MCLs. No further investigation of the site was recommended in the Phase II report in this regard.

To address potential contamination effectively, the Project Sponsor has agreed to implement Mitigation Measure 5 (p. 37). If additional testing concludes that soil and groundwater conditions could pose significant human health or safety hazards, a Site Safety and Health Plan would be prepared pursuant to California Division of Occupational Safety and Health requirements and National Institute for Occupational Safety and Health guidance to ensure worker safety. Under these requirements, the Site Safety and Health Plan would need to be prepared prior to initiating any earth-moving activities at the site. The plan would contain policies and procedures to protect site workers from potential health and safety impacts related to contaminated soil and groundwater. The plan would apply to all site activities through the completion of earthwork construction. It would include specific training requirements and personal protection equipment for on-site workers. The Site Safety and Health Plan is not required to include measures to minimize the potential for public exposure. Mitigation Measure 5 would minimize potential public exposure to hazardous materials and would avoid adverse affects on health and safety (p. 37).

Asbestos

Asbestos is regulated both as a hazardous air pollutant and as a potential worker safety hazard. Bay Area Air Quality Management District (BAAQMD) and Cal/OSHA regulations restrict asbestos emissions from demolition and renovation activities, and specify safe work practices to minimize the potential for release of asbestos fibers. These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and

monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos. The Phase I report included a limited asbestos assessment that did identify the presence of suspect asbestos containing material (ACM) at or above regulated levels at the project site. The Phase I report recommends the development of an Operations and Maintenance Program that meets BAAQMD and OSHA regulations, under which the identified ACM would be monitored and controlled. The Phase I report also recommends that prior to any demolition, any ACM at the site that would be affected by the activities be isolated and/or abated by a licensed asbestos contractor, as required by applicable BAAQMD regulations. The project sponsor would comply with applicable law and regulations in causing the removal of ACM, as provided in Mitigation Measure 5c. (p. 37).

Fire Safety and Emergency Access

San Francisco ensures fire safety through provisions of the Building Code and Fire Code. Existing buildings are required to meet standards contained in these codes. The proposed project would also conform to these standards, which may include development of an emergency procedure manual and an exit drill plan. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be addressed during the permit review process.

With implementation of the mitigation measure included as part of the project, as identified on p. 37, potential health and safety issues related to existing and future hazardous materials use, contaminated soil and groundwater, potentially hazardous building components, and fire safety and emergency access would be reduced to less-than-significant levels. Therefore, these issues do not require further analysis and will not be discussed in the EIR.

13. <u>Cultural - Could the project:</u>	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community, ethnic or social group; or a paleontological site except as a part of a scientific study?	—	X	X
b. Conflict with established recreational, educational, religious or scientific uses of the area?	—	X	—
c. Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City <i>Planning Code</i> ?	—	X	X

Archaeological Resources

An archaeological research design and treatment plan (ARD/TP) was prepared for the proposed project in April 2003.²⁶ The information presented below is based on that report. The Archaeological Research Design/Treatment Plan for the Trinity Plaza Apartments Project addresses the prehistoric, historic, and natural formation contexts of the project site; the potential for archaeological resources to be present; the significant research themes related to the prehistoric and historical context of the project; the evaluation of identified expected archaeological resources for eligibility for listing in the California Register of Historic Resources (CRHR); and the treatment of discovered prehistoric and

historical archeological resources. From the middle Holocene period (5,000 years before the present) until early local historical times, one of the most prominent features of eastern San Francisco was Mission Bay, a crescent-shaped cove with marshlands that extended into the South of Market area. Surrounding both Mission Bay and Creek were salt marshes that stretched well over 300 acres. The largest salt marsh, located northwest of Mission Bay and covering approximately 160 acres, extended from the area bound by Harrison, Fourth, Brannan and Sixth Streets to beyond Jessie Street on either side of Seventh Street to within one block of the project site. The Mission Bay marshes were highly important to prehistoric populations, as they provided a rich and vast range of subsistence resources in the form of fish, shellfish, water birds and sea mammals as well as marsh plants such as tules, grasses, and cattails. Adjacent to the marshlands were terraced valley areas, teeming with deer, rabbit, birds and other small game. Together these shoreline environments would have been favorable locales for prehistoric habitation and activity.²⁷ In the last two decades, a significant concentration of prehistoric archeological sites has been discovered between the northern historic shoreline of Mission Bay and Market Street. The oldest evidence of human occupation (CA-SFr-28) in San Francisco (approximately 5000 years before the present) was discovered opposite Market Street from the project site. The potential for discovering prehistoric cultural resources, in this once highly-favorable prehistoric setting, is high. Any prehistoric archeological resources that might be present within the project site would be scientifically informative and, thus, eligible for listing in the California Register of Historical Resources under Criterion D. Therefore, any prehistoric archeological resources within the project site would be historical resources under CEQA.

Archival sources show little, if any, cultural activity occurring within the site vicinity during the Spanish, Mexican, or early American historical eras. The site was slow to develop throughout most of the 19th century. From a review of available historical documents, no evidence of systematic development or occupation of the site had occurred by the height of the Gold Rush era in the early 1850s. The first documented examples date from the Later Gold Rush era of the mid-1850s. The 1857 and 1859 U.S. Coast and Geodetic Survey map of San Francisco shows several structures onsite. These structures were likely associated with other cultural features, including wells, privies, and/or trash pits. Although specific archival data are generally lacking, these mid-19th century structures probably served as residences. The 1859 U.S. Coast Survey map shows that no systematic grading or typographic alteration had yet occurred within the project area. By the time of the 1869 Survey map, the project site appears vacant and grading activities were underway in the project vicinity. During the 1850s, 1860s and 1870, massive grading activities took place throughout the South of Market area to level the region's many sand hills to make way for commercial and industrial expansion. On the project site, it would appear that over 50 feet of sand was cut away, leaving a slope between Market and Mission Streets of about 10 feet in elevation which still exists today. The pattern of topographic modification suggests that any deeply buried subsurface cultural resources (such as prehistoric sites and burials) that may have existed within the project site prior to grading operations in the 1860s and/or 1870s may have survived damage or removal often associated with extensive grading activities. As such, any prehistoric sites that may once have existed within the project area may still lie buried beneath a layer of sand dune and/or later 19th century fill or debris associated with the 1906 Earthquake and fire on the project site. It is less likely that early structures on the project site's sand hills during the 1850s and 1860s would have survived the grading process. As a result, there is a low potential for encountering cultural resources, such as trash pits or filled in privies dating from the Early American and California Gold Rush Periods (1846 –1859) and the Mid-19th Century.²⁸

The former Yerba Buena Cemetery existed from 1850 to 1871, near the project site (directly north across Market Street). While most burials were removed, a few burials and grave markers were found in later years near Market Street. As such, there is a moderate potential for encountering human burials from the early years of the California Gold Rush through 1871.

In 1886, nearly the entire project site was taken up by the grounds and associated structures of Central Park, San Francisco's first downtown baseball stadium. By 1899, the grounds of the stadium had been converted to an amusement park, including an early gravity-powered rollercoaster and a three-story circular building depicting a panorama of the 1898 Battle of Manila. Central Park and its associated cultural deposits represent one of the most significant cultural properties likely to be encountered on the project site. The possibility of recovering architectural remains, cultural features, and/or related archaeological materials is likely. Historical archeological resources associated with the Gold Rush and the Later 19th Century Periods could potentially contain data relevant to historical research themes, such as Victorianism and Urban Geography. These resources if present and possessing sufficient integrity would potentially be eligible for listing in the CRHR under Criterion D. Therefore, the historical archeological resources expected to be present within the project site are potentially historical resources under CEQA.

The Central Park recreational use continued until the 1906 earthquake and fire, which destroyed all structures on the project site. By 1914, only a small strip of commercial structures existed at the corner of Eighth and Market Streets. Later uses around 1950 included the Crystal Palace Public Market on the northern portion of the site, with a gas station, parking lots, and associated buildings on the southern portion of the site.

The proposed project would excavate to a maximum depth of approximately 35 feet. It is not known whether significant archaeological resources exist at the project site; however, potentially significant subsurface cultural resources from the Prehistoric/Protohistoric Period, Gold Rush era and Later 19th Century Period may exist at one or more locations within the confines of the project area. The Project Sponsor would implement Mitigation Measure No. 6 – Archaeological Resources, pp. 37-40, to reduce any potentially significant disturbance, damage, or loss of archaeological resources to a less-than-significant level. The Mitigation Measure would also require an archaeological monitoring program and an archaeological data recovery program as appropriate. Implementation of Mitigation Measure 6 would ensure that the proposed project would have a less-than-significant effect on archaeological resources; accordingly, there will be no further discussion of this issue in the EIR.

Historic Architectural Resources

The project site is currently an apartment building built in 1960 and used as a hotel from 1960 to 1978, which includes a restaurant and parking. The building would not be considered eligible for the National Register of Historic Places because it does not meet the criteria for eligibility due to the recent age of the building and insufficient historical significance. Therefore, the proposed project's potential to affect historic and architectural resources of significance would be limited to its potential effect on adjacent properties. The project site is adjacent across Market Street to the *Planning Code* Article 10 Civic Center Historic District; the Orpheum Theater is deemed a contributory building to this district. The Orpheum Theater is also listed as a Category I Significant Building in *Planning Code* Article 11, Preservation of Buildings and Districts of Architectural, Historic and Aesthetic Importance in the C-3 Districts. The proposed project would not directly affect the character or resources of the Civic Center Historic District. The project would change the visual setting of the south side of Market Street near the Orpheum Theater; this would not be considered a significant impact on the architectural character of that listed building on the historic district. As noted in 2., *Visual Quality*, above, the EIR will discuss the project's design, appearance, possible effects on views and its relation to the scale of surrounding development. The proposed project would also not substantially affect the character or significance of the Market Street Theatre and Loft District (generally encompassing properties fronting Market Street between Sixth and Seventh Streets) because it is located a considerable distance from the closest contributing buildings to the District, the Strand Theatre at 1127 Market Street, between

Seventh and Eighth Streets and Odd Fellows Hall at Seventh and Mission Streets, approximately 500 feet to east of the project site, and would have no demonstrable effect on the District's or the individual resource's historic setting. In addition, the new Federal Building now under construction at Seventh and Mission Streets would limit views of the project site when completed, because this development is located roughly between the District resources and the project site. As a result, the proposed project would have a less-than-significant effect on historic architectural resources. Accordingly, there will be no further discussion of this issue in the EIR.

C. OTHER - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
Require approval and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from regional, state, or federal agencies?	—	<u>X</u>	—
D. MITIGATION MEASURES	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
1. Could the project have significant effects if mitigation measures are not included in the project?	<u>X</u>	—	<u>X</u>
2. Are all mitigation measures necessary to eliminate significant effects included in the project?	<u>X</u>	—	<u>X</u>

Mitigation Measure 1: Construction Noise

- a. In the event that pile driving becomes necessary for the project foundation, the project sponsor shall require that its geotechnical engineering contractor conduct a pre-construction assessment of existing subsurface conditions and the structural integrity of nearby buildings subject to pile driving impacts prior to receiving a building permit. If recommended by the geotechnical engineer, for structures or facilities within 50 feet of pile driving, the project sponsor shall require ground-borne vibration monitoring of nearby structures. The project sponsor shall also require its construction contractor to use noise-reducing pile driving techniques if nearby structures are subject to pile driving noise and vibration. These techniques are pre-drilling pile holes (if feasible, based on soils) to the maximum feasible depth, installing intake and exhaust mufflers on pile driving equipment, vibrating piles into place when feasible, and installing shrouds around the pile driving hammer where feasible.
- b. The project sponsor shall require project construction contractor(s) to pre-drill holes to the maximum depth feasible on the basis of soil conditions. Contractors shall be required to use construction equipment with state-of-the-art noise shielding and muffling devices.

Mitigation Measure 2: Construction Air Quality

- a. The Project Sponsor shall require the contractor(s) to spray the site with water during demolition, excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand or other such material; and sweep surrounding streets during demolition, excavation, and construction at least once per day to reduce particulate emissions.

- b. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the Project Sponsor shall require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The Project Sponsors shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

Mitigation Measure 3: Geology/Topography

- a. One or more geotechnical investigations by a California-licensed geotechnical engineer are included as part of the project. The Project Sponsor and its contractors shall follow the recommendations of the final geotechnical reports regarding any excavation and construction for the project. The project sponsor shall ensure that the construction contractor conducts a pre-construction survey of existing conditions and monitors the adjacent buildings for damage during construction, if recommended by the geotechnical engineer.
- b. As dewatering would be necessary, the Project Sponsor and its contractor shall follow the geotechnical engineers' recommendations in the geotechnical report regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering. The Department of Building Inspection would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Instruments shall be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge shall be used to halt this settlement. The project sponsor shall delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street shall be born by the Project Sponsor.
- c. The project sponsor and its contractor shall follow the geotechnical engineers' recommendations regarding installation of settlement markers around the perimeter of shoring to monitor any ground movements outside of the shoring itself. Shoring systems shall be modified as necessary in the event that substantial movements are detected.

Mitigation Measure 4: Water Quality

- a. As dewatering would be necessary, the Project Sponsor shall follow the recommendations of the geotechnical engineer or environmental remediation consultant, in consultation with the Bureau of Environmental Regulation and Management of the Department of Public Works, regarding treatment, if any, of pumped groundwater prior to discharge to the combined sewer system.
- b. As dewatering would be necessary, groundwater pumped from the site shall be retained in a holding tank to allow suspended particles to settle, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works to reduce the amount of sediment entering the combined sewer system.

- c. The Project Sponsor shall require the general contractor to install and maintain sediment traps in local storm water intakes during construction to reduce the amount of sediment entering the combined sewer system, if this were found to be necessary by the Bureau of Environmental Regulation and Management of the Department of Public Works.

Mitigation Measure 5: Hazardous Materials

- a. The Project Sponsor shall implement the Voluntary Cleanup Agreement with DTSC. If required by DTSC, the Project Sponsor shall implement the soil sampling procedures of the Sampling and Analysis Plan (SAP), subject to review and approval of DTSC, including soil borings, sampling protocol, classification, and analysis at a certified hazardous materials laboratory, to determine the level of contamination. Upon completion of activities contemplated by the Voluntary Cleanup Agreement, the Project Sponsor will either prepare a site investigation report presenting the investigation methodology employed, findings, and conclusions for the subject site or provide certification from DTSC that it is satisfied with respect to the previously unresolved case. Any conclusions and/or recommendations from DTSC or the site investigation report shall be implemented by the Project Sponsor during project demolition and construction efforts if not already completed prior to commencement of construction activities.
- b. At the time of excavation, excavated soils will be tested and classified and treated and/or reused on site and/or disposed of at an appropriate facility in accordance with determinations made and approved by the San Francisco Department of Public Health (DPH) and/or a State agency in accordance with a Soil Excavation Plan (SEP) to be approved by DPH or the designated State agency. Reuse of contaminated soils on-site may require a risk assessment to determine potential effects to future site occupants and/or occasional utility maintenance workers. The Project Sponsor shall implement those measures set forth in the Soil Excavation Plan dated March 20, 2003, regarding soil excavation.
- c. The project sponsor shall comply with BAAQMD regulations and all applicable laws with respect to the abatement of asbestos-containing material (ACM) and shall implement those recommendations contained in the Phase I Environmental Site Assessment for the project prepared by PSI dated September 24, 2002 for development of an Operations and Maintenance Program that meets current EPA and OSHA regulations for monitoring of ACM and for isolation and abatement of ACM by a licensed asbestos contractor.

Mitigation Measure 6: Archaeological Resources

Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant shall implement the ARD/TP. The consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant's work shall be conducted in accordance with this measure and with the requirements of the project archaeological research design and treatment plan (*Archeo-Tec, Archaeological Research Design/Treatment Plan for the Trinity Plaza Apartments Project*, April 21, 2003) at the direction of the Environmental Review Officer (ERO). In instances of any inconsistency between the requirements of the project archeological research design and

treatment plan and of this archaeological mitigation measure, the requirement of the latter shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval a final archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- The proposed project shall be redesigned so as to avoid any adverse effect on the significant archaeological resource; or
- A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that the archaeological monitoring program shall be implemented the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archaeological consultant shall determine what project activities shall be archaeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential logical resources and to their depositional context;

- The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;
- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;
- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accordance with the archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO have met and consulted on the scope of the ADRP prior to preparation. The ADRP identifies how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP identifies what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP includes the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.

- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California logical Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

E ALTERNATIVES

The EIR will discuss a variety of alternatives to the project that would reduce or eliminate any significant environmental effects. At the least, the EIR will include the following:

- No Project Alternative
- Alternatives that could reduce or eliminate potential significant adverse effects, which could include shadows, wind, or traffic impacts.

F MANDATORY FINDINGS OF SIGNIFICANCE

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history?			<u>TO BE DETERMINED</u>
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		<u>X</u>	
3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)			<u>TO BE DETERMINED</u>
4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?			<u>TO BE DETERMINED</u>

H. ON THE BASIS OF THIS INITIAL STUDY:

I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

DATE: _____

Paul Maltzer
Environmental Review Officer
For
Gerald G. Green
Director of Planning.

DOCUMENT PREPARER

EIP Associates
601 Montgomery Street, Suite 500
San Francisco, California 94111

Notes:

- ¹ The actual mix of studios, one-bedroom and two-bedroom units may change over time as the design changes or as market conditions demand. The proposed mix as indicated in the text involves an allocation of 79 percent studios, 8 percent one-bedroom units, and 13 percent two-bedroom units. (For purposes of worst-case analysis in terms of transportation impacts and population impacts of the proposed project, analysis is also provided based on a higher proportion of two-bedroom units as follows: Studios—1,001 (71%); one-bedroom units—113 (8%); two-bedroom units—296 (21%).)
- ² San Francisco Redevelopment Agency and City and County of San Francisco, *Mid-Market Redevelopment Plan Draft Environmental Impact Report*, 2002.0805E, September 28, 2002. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ³ A Significant or Contributory building under Article 11 is a building of historic and/or architectural merit.
- ⁴ San Francisco Redevelopment Agency, City and County of San Francisco, *Mid-Market Redevelopment Plan, Draft Environmental Impact Report*, Planning Department file No. 2002.0805E, September 28, 2002. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ⁵ Based on population growth projections of 2 persons per unit, as cited in the *Mid-Market Redevelopment Plan Draft EIR*, pp. 47-48. The 2.0 persons per dwelling unit was a composite factor for all sizes of housing units, including market rate and affordable units. Because the proposed project would provide primarily studio and one-bedroom units, the estimate of 2.0 persons per unit is likely conservatively high. For comparison, Fox Plaza Apartments at Market Street and Larkin Street, has about 1.2 persons per unit, and St. Francis Place, market-rate apartments at Third and Folsom Street, has about 1.6 persons per unit.
- ⁶ The Project Sponsor reports actual occupancy of 330 units with a population of 471 persons in June 2003. As indicated in the text, the project sponsor reports substantial turnover and fluctuation in occupancy, especially at the end of the typical school year due to typical occupancy of a number of units by visiting students.
- ⁷ Association of Bay Area Governments, Projections 2000.
- ⁸ San Francisco Planning Department, *Final Draft for Public Review-Housing Element Revision of the General Plan*, p. 25.
- ⁹ San Francisco Redevelopment Agency and the City and County of San Francisco Planning Department, *Mid-Market Redevelopment Plan Draft EIR*, 2002.0805E, September 28, 2002, p.187.
- ¹⁰ San Francisco Redevelopment Agency and the City and County of San Francisco Planning Department, *Mid-Market Redevelopment Plan Draft EIR*, 2002.0805E, September 28, 2002, p.187.
- ¹¹ City and County of San Francisco, *Solid Waste Generation Study*, October 1992, pp.4-12 (obtained from City and County of San Francisco Planning Department, *Mission Bay Subsequent Environmental Impact Report*, Mission Bay Solid Waste Generation at Build-Out, Table L.2, September 17, 1998, SCH No. 97092068). Solid waste generation rates: Residential – 2.5 lbs/person/day.
- ¹² NSWMA, Basic Data: Solid Waste Amounts, Composition, and Management, Technical Bulletin #85-6, October 1, 1985 (obtained from City and County of San Francisco Planning Department, *Mission Bay Subsequent Environmental Impact Report*, Mission Bay Solid Waste Generation at Build-Out, Table L.2, September 17, 1998, SCH No. 97092068). Solid waste generation rates: Retail/Office – 2 lbs/day/100 gsf.

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- ¹³ San Francisco Public Utilities Commission website, http://sfwater.org/orgDetail.cfm/MO_ID/48, accessed January 21, 2003.
- ¹⁴ City and County of San Francisco Planning Department and the San Francisco Redevelopment Agency, *Mission Bay Subsequent Environmental Impact Report*, Mission Bay Project Total Daily Water Demand and Wastewater Generation at Buildout (2015), Mission Bay North and South, Table L.3, September 17, 1998. Wastewater generation assumed to be 90% of water consumption.
- ¹⁵ San Francisco Redevelopment Agency and the City and County of San Francisco Planning Department, *Mid-Market Redevelopment Plan Draft EIR*, 2002.0805E, September 28, 2002, p.180.
- ¹⁶ San Francisco Unified School District website, <http://portal.sfusd.edu/template/sfusd.cfm>, accessed January 23, 2003.
- ¹⁷ San Francisco Redevelopment Agency and the City and County of San Francisco Planning Department, *Mid-Market Redevelopment Plan Draft EIR*, 2002.0805E, September 28, 2002, p.180.
- ¹⁸ Treadwell & Rollo, *Geotechnical Investigation, Trinity Plaza, 1169 Market Street, San Francisco, California*, January 3, 2003. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ¹⁹ City and County of San Francisco, Public Utilities Commission, Resolution No. 02-0084, May 14, 2002.
- ²⁰ Treadwell & Rollo, *Geotechnical Investigation, Trinity Plaza, 1169 Market Street, San Francisco, California*, January 3, 2003, p. 9. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²¹ Treadwell & Rollo, *Geotechnical Investigation, Trinity Plaza, 1169 Market Street, San Francisco, California*, January 3, 2003, p. 9. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²² Professional Service Industries, *Phase I Environmental Site Assessment, Apartment Complex, 1169 Market Street, San Francisco, San Francisco County, California, 94103*, September 24, 2002. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²³ Professional Service Industries, *Site Investigation Report, Apartment Complex, 1169 Market Street, San Francisco, San Francisco County, California, 94103*, January 8, 2003, p. 2. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²⁴ Professional Service Industries, *Sampling and Analysis Plan, Apartment Complex, 1169 Market Street, San Francisco, California 93940*, March 13, 2003. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²⁵ Professional Service Industries, *Soil Excavation Plan, Apartment Complex, 1169 Market Street, San Francisco, California 93940*, revised March 27, 2003. A copy of this report is available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²⁶ Archeo-Tec, *Archaeological Research Design/Treatment Plan for the Trinity Plaza Apartment Project, City and County of San Francisco, CA*. Prepared for EIP Associates, April 21, 2003.
- ²⁷ David Chavez & Associates, *Archaeological Resources Investigation for the Mid-Market Redevelopment Plan Project*, San Francisco, California, June 2001. This study is on file and available for public review by appointment at the Planning Department, 1660 Mission Street, 5th Floor.
- ²⁸ Archeo-Tec, *Archaeological Research Design/Treatment Plan for the Trinity Plaza Apartment Project, City and County of San Francisco, CA*. Prepared for EIP Associates, April 21, 2003.

APPENDIX B: WIND STUDY

**WIND TUNNEL ANALYSIS FOR THE PROPOSED
1177 MARKET STREET PROJECT, SAN FRANCISCO**

Prepared for:

EIP Associates
353 Montgomery Street, Suite 1000
San Francisco, CA. 94111

September 2005

I. INTRODUCTION

The project site is located at 1177 Market Street and is bounded by Market Street to the north, Eighth Street to the west, and Mission Street to the south, in the greater Downtown San Francisco area. The proposed project would consist of three apartment buildings ranging from 18 to 25 stories, or approximately 162 to 243 feet in height. The proposed buildings would include up to 1,900 residential rental units and approximately 60,000 square feet (sq. ft.) of retail uses at street level. Parking for approximately 1,450 vehicles would be provided for residential and short-term public parking on four levels, including two levels below grade. The project would include five full-sized loading spaces and four van-sized loading spaces. The project would provide about 1.4 acres of open space with approximately 41,600 sq. ft. for residents' use in a central courtyard and the remaining 21,322 sq. ft. in an entry court accessible to the public from Market Street and Eighth Street.

The results of three test scenarios are reported here:

- (1) Existing conditions. This included the adjacent Federal Building and 1160 Mission projects currently under construction.
- (2) Existing conditions plus the proposed project.
- (3) Existing conditions, plus the proposed project, plus cumulative development. Cumulative development consisted of the following developments that have been approved or are under review by the Planning Department:

- 1125 Market Street
- Mercy Housing
- 55 9th Street
- 77 Van Ness
- 1 Polk Street
- Furniture Mart Addition
- Tenth/Market/Mission Streets Mixed-Use Project

Wind tunnel studies were performed to investigate the pedestrian wind environment around the project site. Pedestrian-level wind speeds were measured at selected points for the existing site and with the addition of the proposed project and cumulative development. The wind tunnel data were used to quantify wind impacts in public spaces near the site and to predict the acceptability of wind conditions near the site. Interior measurements were also made to provide information on the usability of proposed outdoor spaces within the project.

II. METHODOLOGY

Wind Tunnel Facilities

The scale model was tested in a Boundary Layer wind tunnel at the University of California, Davis, under the direction of Dr. Bruce White. These tests, however, were performed independent of the University.

Model and Boundary Layer

A 1 inch equals 50 feet scale model of the project site and surrounding several blocks was constructed in order to simulate the project and its existing context. Wind obstructions located further away from the project site were considered part of the general roughness of the site, and were modeled as part of the characteristic atmospheric boundary layer in the wind tunnel.

Simulation of the boundary layer in the natural wind is achieved by turbulence generators placed upwind of the test section. This allows for adjustment in the wind characteristics to provide for different model scales and varying terrain upwind of the project.

Measurement Protocols

The velocity measurements in this study were made with a hot wire anemometer. A total of 30 velocity measurement locations were selected for this study located along sidewalk areas adjacent to and near the project site for all runs. An additional 4 measurements were made in interior pedestrian space to be created within the site.

In accordance with the San Francisco Wind Ordinance methodology for wind tunnel tests, the model was tested for four wind directions: northwest, west-northwest, west and west-southwest.

Data Analysis

Section 148 the *San Francisco Planning Code* establishes a comfort criterion based on wind acceptability criteria defined in terms of "equivalent wind speed" (EWS). EWS denotes the mean hourly wind speed adjusted to account for the expected turbulence intensity or gustiness at the site. The wind speed limits in the code were developed with an inherent turbulence intensity of 15 percent. When the measured turbulence intensity at a point is greater than 15 percent, the equivalent wind speed is calculated by multiplying the mean velocity at the point by a weighting factor according to the following formula:

$$\text{EWS} = V_m (2 * \text{TI} + 0.7) \text{ where:}$$

V_m = mean pedestrian-level wind speed

TI = turbulence intensity

For measured turbulence intensities less than 15 percent, EWS is taken to be equal to V_m .

Each wind-tunnel measurement results in a ratio that relates the speed of ground-level wind to the speed at the reference elevation; in this case the height of the Old San Francisco Federal Building. The frequency with which a particular wind velocity is exceeded at any test location is then calculated by using the measured wind-tunnel ratio and a specified ground speed to determine the corresponding reference wind speed for each direction. In general, this gives different reference speeds for each major directional component of the wind. The wind data for San Francisco are then used to calculate the percentage of the time that the specific ground-level wind speed is exceeded for each directional component. The sum of these is the total percentage of time that the specified ground-level wind speed is exceeded. A computer program is used to calculate the total percentages for a series of wind speeds until the speed exceeded ten percent of the time is found, for each location.

The mean wind speeds are compared to the comfort criterion of 11 mph for pedestrian areas, not to be exceeded more than 10 percent of the time. Separate calculations evaluate compliance with the hazard criterion. The wind data observed at the Old San Francisco Federal Building are not full hour average speeds as specified by the Code, so it is necessary to adjust the equivalent speeds to obtain the hourly average of 26 mph. The frequency of short-term (3-minute averaged) wind observations at 36 mph is equivalent to the frequency of an hourly-averaged wind of 26 mph.

III. CRITERIA AND HISTORICAL WIND RECORDS

Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to 4 mph have no noticeable effect on pedestrian comfort. With winds from four to 8 mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 mph, the force of the wind will be felt on the body. At 26 mph to 34 mph wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over.¹

Section 148 of the City of San Francisco *Planning Code* sets comfort levels of 7 mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. In addition to comfort criteria, the *San Francisco Planning Code* establishes a wind hazard criterion. The hazard criterion is set at an hourly averaged wind speed of 26 mph, which is not to be exceeded more than once during a year.

Predictions of wind speed are based upon historical wind records from the U.S. Weather Bureau weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945 to 1950. This data base, comprised of 32,795 hourly observations, is of sufficient length to provide a reliable estimate of future climatic conditions in San Francisco.

Table 1 shows that average wind speeds are greatest in the summer and least in the fall. Winds also exhibit a diurnal variation with the strongest winds occurring in the afternoon, and lightest winds occurring in the early morning.

Winds in San Francisco are most frequently from the west to northwest directions, reflecting the persistence of sea breezes. Wind direction is most variable in the winter. The approach of winter storms often results in southerly winds. Although not as frequent as westerly winds, these southerly winds are often strong. The strongest winds in San Francisco are typically from the south during the approach of a winter storm.

Table 1: Seasonal Wind Direction Frequency in Percent and Average Speed in Knots²

Direction	January	April	July	October	Annual			
	Freq.	Speed	Freq.	Speed	Freq.	Speed	Freq.	Speed
N	12.5	7.9	2.2	11.0	0.3	6.0	3.3	6.6
NNE	1.3	5.6	0.7	6.1	0.3	6.8	0.7	6.6
NE	4.5	5.3	1.3	4.7	1.1	7.4	2.2	5.8
ENE	1.4	6.3	0.6	4.8	0.2	5.1	0.8	5.1
E	11.9	4.8	2.6	4.5	0.1	3.9	4.8	4.5
ESE	2.1	6.4	0.3	5.2	0.1	2.5	0.6	5.8
SE	9.1	6.4	2.4	7.8	0.2	5.0	3.7	6.6
SSE	2.8	5.6	0.3	3.8	0.1	3.0	1.3	9.0
S	6.7	5.0	4.2	7.1	1.1	4.9	4.5	7.5
SSW	1.0	4.8	0.4	4.1	0.1	3.0	1.7	12.8
SW	4.5	8.0	7.7	9.2	15.6	10.1	7.8	9.1
WSW	1.0	5.9	1.7	7.7	1.2	8.1	2.8	8.8
W	13.2	7.2	43.0	10.9	53.0	13.1	34.6	9.1
WNW	7.5	11.1	20.7	14.1	14.9	14.5	15.2	10.9
NW	11.5	7.7	9.3	10.7	10.7	11.4	10.8	8.5
NNW	1.2	5.7	0.6	10.8	0.6	8.5	0.5	7.5
Calm	7.7	---	2.1	---	0.3	---	4.6	---

IV. RESULTS

The comfort criterion results are shown in Table 2. For each measurement point the measured equivalent wind speed is compared to the comfort criterion. Where the predicted wind exceeds the comfort criterion, the percent of time that the wind speed exceeds the criterion is shown.

The hazard criterion results are shown in Table 3. The predicted number of hours that the wind would exceed the criterion is shown at each of the measurement points.

The location of measurement points is shown in Figure 1.

Comfort Criterion

The existing conditions in the proposed project vicinity are windy; the average wind speed for the 30 sidewalk test point locations is approximately 13.3 mph. Wind speeds of 14 mph or more occur at eleven of the 30 sidewalk locations. The highest wind speed in the vicinity (23 mph) occurs on the east side of Seventh Street between Mission and Stevenson Streets downwind from the project site. Eleven of the 30 sidewalk locations currently meet the Planning Code's pedestrian-comfort criterion value of 11 mph.

Nineteen of the 30 test points tested exceed the Planning Code's pedestrian comfort value of 11 mph under existing conditions. These exceedances are generally located along both sides of Market Street north of the project site, both sides of Mission Street north of the project site and both sides of Eighth Street between Market and Mission Streets.

With the project in place, conditions would be little changed; the average wind speed for all 30 sidewalk test points would be about 13.4 mph. Wind speeds in sidewalk pedestrian areas would range from 6 mph to 22 mph, compared with a range of 8 to 23 mph under existing conditions. The project would add six new exceedances and eliminate five existing exceedences for a new total of 20 exceedances, one more than under existing conditions.

With the project, as compared to existing conditions, wind speed in pedestrian areas would increase at 16 locations, remain unchanged at 4 locations and decrease at 10 locations. The highest wind speeds (22 mph) would occur downwind from the project site, on the east side of Seventh Street, between Stevenson and Mission Streets. Increases in wind speed would be 9 mph or less.

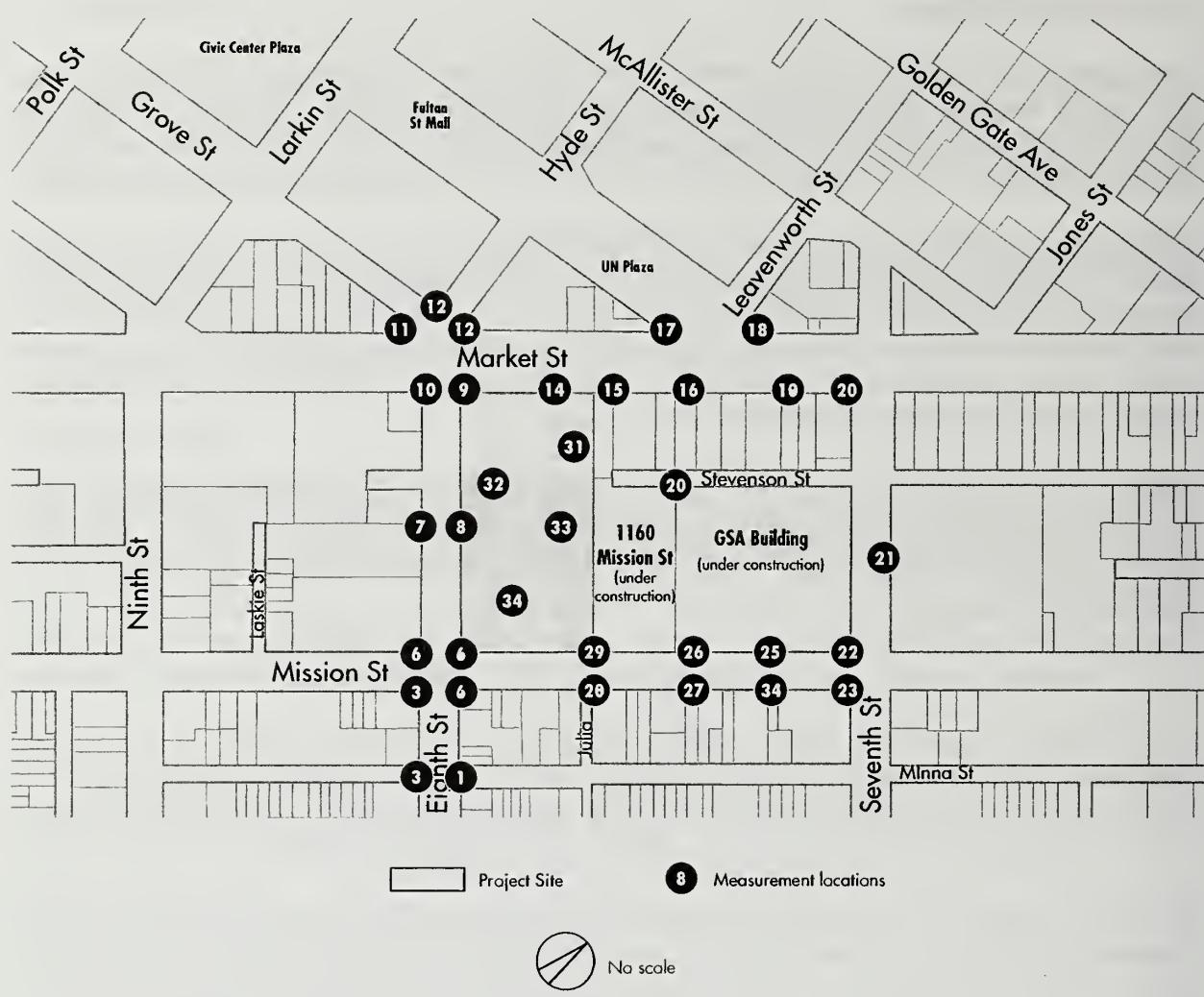
Under the cumulative scenario, winds would be increased; the average wind speed for all 30 sidewalk test points would be about 13.7 mph. Wind speeds in sidewalk pedestrian areas would range from 7 mph to 22 mph, compared with a range of 8 to 23 mph under existing conditions. Cumulative development would add one new exceedance and eliminate one existing exceedence for a total of 20 exceedances, one more than under existing conditions.

Wind Hazard Criterion

Twenty-six of the 30 sidewalk test locations currently meet the wind hazard criterion. Four test points exceed the Planning Code's wind hazard criterion (speeds reaching or exceeding the hazard level of 26 mph, as averaged for a single full hour of the year) under existing conditions. Total duration of the four existing exceedances is 148 hours per year.

With the project, three exceedances of the wind hazard criterion (points 24, 27 and 30) would be eliminated, while two new exceedances at locations 5 and 7 would occur. The exceedance of the wind hazard criterion at point 21 would remain. Total duration of all wind hazard exceedances would be 144 hours per year, compared with 148 hours per year under existing conditions, for reduction of 4 hours per year. The project would have an overall beneficial effect on hazardous winds.

Under the cumulative scenario, new exceedances of the wind hazard criterion would occur at points 4, 8, and 9. Total duration of all wind hazard exceedances would be 169 hours per year, compared with 148 hours per year under existing conditions, an increase of 21 hours per year.



1-27-06

Source: Donald J. Ballanti

1177 Market Street Project

FIGURE 2: WIND STUDY MEASUREMENT LOCATIONS

Table 2: Comfort Criterion Results

Location	Criterion (MPH)	Existing		Project		Cumulative	
		Velocity (MPH)	% Time Above Criterion	Velocity (MPH)	% Time Above Criterion	Velocity (MPH)	% Time Above Criterion
1	11	14	18	17	29	17	32
2	11	8	4	9	3	11	9
3	11	10	8	14	25	14	19
4	11	10	9	19	39	19	42
5	11	13	15	20	36	19	33
6	11	9	6	15	27	15	26
7	11	15	17	17	21	17	21
8	11	15	23	15	25	17	29
9	11	18	34	13	20	14	22
10	11	19	36	17	30	18	37
11	11	9	3	10	5	10	7
12	11	9	4	9	3	10	6
13	11	9	4	10	8	12	15
14	11	9	7	12	12	13	20
15	11	11	9	13	18	13	18
16	11	13	17	17	30	16	31
17	11	12	15	13	20	13	21
18	11	14	21	15	24	14	24
19	11	11	10	15	21	15	26
20	11	17	33	17	31	16	29
21	11	23	42	22	37	22	35
22	11	11	11	11	10	11	11
23	11	13	18	12	13	11	10
24	11	13	16	9	2	8	1
25	11	12	16	10	8	11	10
26	11	14	22	7	1	7	1
27	11	20	39	6	0	6	0
28	11	12	15	10	7	10	5
29	11	20	43	12	12	12	12
30	11	15	23	16	28	19	38
31	11	-	-	12	14	12	16
32	11	-	-	13	20	12	16
33	11	-	-	11	9	10	7
34	11	-	-	17	36	15	29
Average	-	13.3	18	13.4	19	13.7	20

Exceedances of the comfort criterion are shown in **bold**.

Table 3: Annual Hours Exceeding Wind Hazard Criterion

Location	Existing	Project	Cumulative
1			
2			
3			
4			1
5		3	1
6			
7		8	5
8			4
9			3
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21	140	133	132
22			
23			
24	2		
25			
26			
27	5		
28			
29			
30	1		23
31	-		
32	-		
33	-		
34	-		
Total Hours	148	144	169

V. RECOMMENDATIONS

Interior plazas within the proposed project have winds generally exceeding the pedestrian comfort criterion. Interior plazas and walkways should be landscaped to reduce wind and improve usability. Porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) offer superior wind shelter compared to a solid surface. Wind sheltering elements should have sufficient height to shelter the area in question (wind shadows behind porous wind screens or shelter belts provide shelter a distance downwind equivalent to 3 to 5 times the height of the wind screen).

1. Edward Arens, Designing for an Acceptable Wind Environment, Transportation Engineering Journal, March 1981.
2. E. Jan Null, Climate of San Francisco, Report No. NOAA-TM-NWS WR-126, 1978.
3. Arens, E., "Designing for Acceptable Wind Environment," Transactions Engineering Journal, ASCE 107, No. TE 2, 1981, pp. 127-141.

APPENDIX C: TRANSPORTATION

APPENDIX C: TRANSPORTATION

Level of Service Criteria for Signalized Intersections		
Level of Service	Stopped Delay per Vehicle (sec)	Volume to Capacity Ratio
A	≤ 5.0	0.00 - 0.59
B	> 5.0 to ≤ 15.0	0.60 - 0.69
C	> 15.0 to ≤ 25.0	0.70 - 0.79
D	> 25.0 to ≤ 40.0	0.80 - 0.89
E	> 40.0 to ≤ 60.0	0.90 - 0.99
F	> 60.0	1.00 or greater

Source: Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, Washington D.C., 1994 and V and C Ratio from Transportation Research Circular #212, Transportation Research Board, Washington D.C., 1980.

LOS A - Delays of less than 5 seconds

This level of service occurs when progression is extremely favorable. Most vehicles arrive during the green phase and are not required to stop. Short cycle lengths may also contribute to low delay.

LOS B - Delays of greater than 5.0 seconds to 15.0 seconds or less

This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

LOS C - Delays of greater than 15.0 seconds to 25 seconds or less

These higher delays may result from fair progression, longer cycle lengths, or both. Drivers may occasionally be required to wait through more than one signal cycle (red phase). The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D - Delays of greater than 25.0 seconds to 40.0 seconds or less

At level of service D, congestion becomes more noticeable. Longer delays may result from a combination of unfavorable progression, long cycle lengths, or high volume to capacity (v and c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. The number of drivers having to wait through more than one red phase is noticeable.

LOS E - Delays of greater than 40.0 seconds to 60.0 seconds or less

This level is considered by many agencies to be the limit of acceptable delay. The high range of delays generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Drivers frequently are unable to clear the intersection on the first green phase.

LOS F - Delays in excess of 60.0 seconds per vehicle

This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios.

**PLACE
POSTAGE
HERE**

**San Francisco Planning Department
30 Van Ness Avenue, Suite 4150
San Francisco, CA 94102**

**Attn: Paul Maltzer
1177 Market Street Project (Planning Department File No. 2002.1179E)**

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**RETURN REQUEST REQUIRED FOR FINAL
ENVIRONMENTAL IMPACT REPORT**

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

TO: Planning Department

Please send me a copy of the Final EIR.

Signed: _____

Print Your Name and Address Below

